



AGRICULTURAL RESEARCH INSTITUTE

PUSA

JOURNAL
OF THE
BATH AND WEST AND SOUTHERN
COUNTIES SOCIETY

FOR THE
ENCOURAGEMENT OF
AGRICULTURE, ARTS, MANUFACTURES AND
COMMERCE.

ESTABLISHED 1777.

SIXTH SERIES.

VOL. VI.

1931-1932.

WORK AND LEARN.

LONDON

EDWARD STANFORD, LD., 12 TO 14, LONG ACRE, W.C.2.

1932.

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Price to Non-Members Six Shillings and Sixpence.

" He that goes about to forward agricultural improvement must begin by finding out the true reason of what is called routine, or 'the custom of the country.' It sometimes happens that these reasons are only accidental, and then you may dismiss them fearlessly ; but often it turns out that every-day practice rests on a solid foundation of facts ; and then if you make an onslaught on local prejudices, they will be sure to beat you."

" The true course of the agricultural improver is, to take one step at a time, to gain a clear insight into facts by experience, not to try to go too fast, and to trust to the work of time."

" If practice which sets up to do without theory is contemptible, theory without practice is foolhardy and perfectly useless."— *From the Rural Economy of England, Scotland and Ireland*, by LEONCE DE LAVERGNE.

*Journal Communications should be addressed to the Editor,
3, Pierrepont Street, Bath.*

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Original Articles and Reports.

II.—*PREHISTORIC AGRICULTURE IN BRITAIN.

By E. Cecil Curwen, F.S.A.

Much research has been made in recent years into the origin of British Agriculture, though much still remains to be done. Members of the oldest Agricultural Society in England will, it is thought, be interested in this account of ancient British Agriculture and of the steps by which knowledge of it has been acquired. Evidence of agriculture in prehistoric periods depends upon the discovery in prehistoric sites of actual grain, sickles, corn-grinding instruments and instruments for breaking the ground. History can be learnt from the outlines of fields, contemporary with habitation sites of known date, and these categories of evidence will be examined in turn.

(1) CEREALS.

The art of agriculture seems to have found its way into Europe, along with that of weaving, by way of Troy and the Danube valley, and to have been diffused with the neolithic culture. Evidence of it is found in the earliest Danubian period (c. 3000—2500 B.C.), and wheat and barley have been discovered in the remains of the second period (c. 2500—2000). The contemporary lake-dwellings of Switzerland have yielded no fewer than ten varieties of barley, wheat and millet. Spelt, rye and oats do not appear there until the Bronze Age.

In Britain, grain, probably wheat, has been found in a definitely neolithic site at Rothelay, associated with characteristic neolithic pottery and saddle-querns. The next earliest traces consist in the impressions of two grains of wheat in the clay forming the bottom of a "beaker" belonging to the early Bronze Age (c. 1800 B.C.), found by Mr. James E. Cree, F.S.A. Scot., in a kitchen-midden at Tusculum, North Berwick. Almost as old are three grains of carbonized wheat found in a Yorkshire barrow by Mr. J. R.

*By the kind permission of the Editor of "Antiquity."

Mortimer, embedded in the side of a food-vessel belonging to Abercrombie's type 1A (second period of the Bronze Age), while about two pints of charred wheat were found by Mr. J. Graham Callander, F.S.A. Scot., in the Culbin Sands, Morayshire, with what appear to be the remains of a Bronze Age vessel.

When we turn to the sites occupied during the early Iron Age, evidence is more plentiful. Dr. Clay found quantities of Emmer wheat and six-rowed barley in the La Tène I villages at Fifield Bavant and Swallowcliffe, Wilts (c. 400—250 B.C.). Mr. and Mrs. B. H. Cunington found wheat also in the contemporary site at All Cannings Cross. The Glastonbury lake-village yielded wheat, two varieties of barley, and also the Celtic Broad Bean. Similarly the hill-top and other camps of the early Iron Age have produced wheat and barley at Worlebury, Hunsbury, Lidbury and Winklebury.

As to the period in which the cultivation of oats (*Avena sativa*) was introduced into Britain there is very little evidence. It is believed to have been derived from the wild *AVENA FATUA*, a native of South Europe and Western Asia, and, as is stated above, is first found cultivated in Switzerland late in the Bronze Age. The earliest specimens of oats found in Britain seem to be those discovered by Dr. Clay at Fifield Bavant (La Tène I—c. 400—250 B.C.).

Of the northward spread of the knowledge of cereals there is corroborative evidence in the shape of the seeds of the common corn-field weeds which are sometimes found among the grain.

Unfortunately our knowledge of the early cereals of Britain does not yet extend to the cornfield weeds. Clement Reid says: "In time we shall probably be able to use the weeds of cultivation as we do coins for the dating of antiquities; for each period saw the introduction of new cultivated plants, or new varieties, and with each cultivated plant is usually introduced the special set of weeds of its place of origin. This opens up a useful field of enquiry regarding the beginnings of agriculture in Britain.

(2) SICKLES.

The existence of a sickle is evidence of the practice of some form of agriculture. In the early Iron Age iron sickles are fairly common, and consist each of a curved, hook-like blade, sharpened in the concavity, and mounted by means of flanges beaten round the wooden handle. The length of the blade does not usually exceed

eight inches, and may be as little as two and a half inches. Going back to the Bronze Age we find socketed bronze sickles of much the same general shape as their iron derivatives. Indeed, at Llynfawr a socketed iron sickle was found with a bronze one which was evidently the model for it. Being socketed they are probably late, and this variety is confined to Britain and northern France.

This evidence, then, carries us back to the Bronze Age. Is there any earlier evidence? In a few localities in Britain beautifully worked flint knives with curved points have been found, and it has been suggested with fair probability, though hardly with certainty, that these were used as sickles, for they bear some resemblance to the wonderful crescentic knives, serrated on the straighter (concave) edge, which are confined to Scandinavia and North Germany.

But more definite light on this question comes from Egypt, where Sir Flinders Petrie found two sickles consisting of serrated flint flakes set in a curved wooden frame, and belonging respectively to the twelfth and eighteenth dynasties. From these it appears that the characteristic shape of a sickle is derived from that of the jaw-bone of an ox or other animal, and there is some reason to believe that at one time the actual jaw-bone was used for the purpose, the natural teeth being replaced by artificial ones of flint.

One characteristic of these serrated flakes which is constant (except in presumably new and unused specimens) is the polish that extends along both sides of the serrated edge as far as the line where the flint is protected by the cement whereby it was fixed to the wooden frame. Experiments with similar serrated flakes show that such polish is acquired by the lengthened cutting of ripe straw, owing to the presence of organic silica in the latter. This is an important observation because it enables us to say with certainty that any serrated flint with a polished edge was used for cutting stalks—presumably corn, but possibly other grasses.

When therefore such flakes are found in Britain, a polished edge should be taken as an indication that the specimen formed part of a sickle. Examples of these flakes, a large proportion having polished edges, come from the barrows of Yorkshire and elsewhere, and are presumably to be assigned to the early Bronze Age. (See *Antiquity*, June 1930, pp. 179—186.)

(3) IMPLEMENTS FOR GRINDING CORN.

A rock-basin in which a round or elongated stone could be

worked is a form of pounding-apparatus that goes back to a very great antiquity, and is one which served primarily to pound nuts, acorns, or other similar objects. When corn first made its appearance it was probably treated in the same manner—pounded, rather than ground. The next step in development was the introduction of an instrument more suitable for grinding corn, which acted by rubbing rather than by pounding. This is the “saddle-quern,” an instrument in which a smaller stone is rubbed backwards and forwards on a larger, and which first appears in Britain towards the close of the neolithic period. While the older rock-basin continued in use for other purposes, and ultimately developed into the modern pestle and mortar, this new instrument seems to have been invented and exclusively used for the purpose of grinding corn. Its presence, therefore, in any epoch is an indication that agriculture was known and practised.

In our own country the earliest specimens were found by Mr. Alexander Keiller in the neolithic hill-top camp on Windmill Hill, Avebury, and by Major Wade deep down in the shaft of a neolithic flint-mine at Stoke Down, Chichester. The presence of these specimens is sufficient to indicate that agriculture was known and practised at this date. In the museum at Devizes, Wilts, is another specimen from the long barrow on Oldbury Hill, and yet another found with a “beaker” at Winterbourne Monkton, dating from the beginning of the Bronze Age.

Saddle-querns continued to be used in Britain right up to the Roman Period, and are still used by the natives of Central Africa, South America, and Mexico. But at about the end of the La Tène I period (c. 250 B.C.) the rotary quern first makes its appearance in this country, the earliest specimens coming from Dr. Clay's excavation of the La Tène I village at Fifield Bavant, Wilts, where they formed a minority of one to ten among saddle-querns. Thereafter in the other excavated sites rotary querns become more and more predominant, until at Glastonbury (La Tène III, c. 100—1 B.C.), they form a majority of two to one. Those of the early Iron Age are conical, or beehive-shaped; the Romans seem to be responsible for the introduction of the flat, discoidal variety which survived in use in the Hebrides down to the last century.

(4) INSTRUMENTS FOR BREAKING THE GROUND.

From the nature of the case the origin and history of the plough in these islands is obscure, and yet it is one of the most important branches of the study of our ancient agriculture, because on the

type of plough used depends the shape and characteristics of the field ploughed.

Plough-shares of the early Iron Age and Roman period are not uncommon, and consist of a simple metal point designed to fit on to the share-beam, without any device for undercutting and turning over the sods. Such a plough simply scratches a groove in the soil, throwing up a very small up-cast on each side, most of which falls back into the furrow. Coulters were used in the Roman period, and Wright figures a model of a Romano-British ploughman using a simple plough of this kind drawn by two oxen.

Of the ploughs of the Bronze Age we have little direct knowledge.

When did the plough, properly so-called, first appear in Britain, and what kind of implement had previously been used for the same purpose? We can believe that its introduction into this country would be a gradual process—a process, which strange to say, is not yet complete.

In the island of Skye and in the Hebrides is still to be found a very primitive form of implement, called a *caschrom* or foot-plough, with which the crofters drive their furrows without the aid of a horse or ox. This instrument, of which the Gaelic name means literally “bent-foot,” consists of a stout curved handle, some $5\frac{1}{2}$ feet long, set at an angle of 120° into a foot-piece nearly 3 feet long, the point of junction of the two parts being strengthened and made absolutely rigid. Into the right hand side of this angle is set a peg for the crofter’s foot, and the toe of the implement is shod with a rough iron point, not unlike the plough-shares of the early Iron Age.

The method of use is as follows: the crofter drives the foot piece obliquely into the ground by means of a double jerk of his foot upon the peg. Then by depressing the handle he levers up the sod, contriving at the same time to turn it over to his left. Finally he takes a step backwards and repeats the process, thus making a continuous, if somewhat wavy furrow the whole length of his plot. In this way a man reckons to “plough” about a tenth of a Scots acre in a day—about twice as much as he would be able to do with an ordinary spade or fork.

That some such instrument as this was in general use in Britain and Western Europe before the introduction of the traction plough seems to be indicated by the following evidence gathered from Brittany, Somerset and Wales.

(1) In the Pitt-Rivers Museum at Farnham is preserved an old Breton plough, which consists of nothing else than a caschrom fitted with a beam and coulter for traction by oxen. That this kind of plough was produced by adaptation of the caschrom can hardly be doubted when the two instruments are seen side by side, especially when it is noticed that even the peg is preserved, albeit moved further up the handle to provide a grip for the right hand instead of the foot. This seems to indicate that at one time the caschrom was used in Brittany. A very similar plough is said to be figured on a Roman tombstone.

(2) An oak foot-plough, not unlike the caschrom, was found in the lake-village of Glastonbury. This belongs to the latter part of the early Iron Age.

(3) In the curious collection of Welsh tradition, known as the "Triads of the Isle of Britain," occurs the following remarkable information: "Elldud, the holy knight of Theodosius [was one of the three benefactors of the Cambrian nation because he], improved the mode of ploughing land and taught the Cambrians better than was known before, and he gave them the system and art of cultivating lands as is used at present; for before that time land was cultivated only with the mattock and overtread plough after the manner of the Irish."

Whatever view may be taken of the date and historical trustworthiness of this compilation—and at least one statement in this triad is the reverse of the truth—it is not easy to see how this reference to former methods of cultivation can be anything but a genuine folk-memory. The "over-tread plough" means literally "plough of the instep" or "tread-plough," an apt description of the caschrom, and it appears that at the time when this triad was committed to writing such an implement was still used by the Irish—or the Goidels—even as it is to-day by the Goidelic people of the Hebrides. What was the precise improvement said to have been introduced by Elldud is not stated, but we may infer it was the two-ox traction-plough. We are not, however, bound to believe that this was not introduced into Britain till the fifth century of our era, though that may well have been true of Wales, the more so as the traction plough did not evict the caschrom from the western shires of Scotland till the eighteenth century, and has not even yet done so in the remoter islands.

These facts and traditions seem to point to an instrument resembling the caschrom having been in very general use in western

Europe, while its supersession by the ox-drawn plough was a gradual process, not even yet complete, which, as far as Britain is concerned, probably began in the south-east and spread slowly to the more distant parts. As to when this improvement began, there is as yet no evidence, but the foot-plough had apparently not disappeared from Somerset by the first century before Christ.

In the above-quoted triad the reference to cultivation with the mattock carries us back a step further still to an implement which, developmentally, must have preceded the caschrom, if the analogy of modern primitive tribes holds good. Most African tribes, if uninfluenced by European methods, break up the ground with an implement resembling a mattock or hoe, or with a simple digging-stick. This is undoubtedly the most primitive means, and it is from the digging-stick that the caschrom has evidently been developed. Pliny tells us that even in his day some mountain tribes still ploughed without oxen, using a sort of hoe.

The fundamental difference between the mattock, hoe, or digging-stick on the one hand, and the caschrom on the other, is that while the former implements break up the ground irregularly, the latter produces a definite furrow. This is an important point, as will be seen in the next section.

(5) ANCIENT CORN-PLOTS AND FIELDS.

In the effort to prove that the customary acres, which characterized the open-field system prevailing in England during the middle ages, were derived from a Roman, or pre-Roman source, much has been written that would not have been written had the source of the subject been transferred to the field at the point where documentary evidence fails us. The English open-field system, with its statute acres and customary acres, has been fully described by various writers, and is well known. The English acre which in its statute form had a length ten times its breadth, and consequently a furrow of 660 feet and a breadth of 66 feet, has been satisfactorily traced back to the early part of the Saxon period, but not further, at any rate as far as Britain is concerned.

On the chalk hills of the south-east of England the relics of terrace cultivation, in no wise resembling the arrangements of the English open-field system, are everywhere to be found.

These ancient cultivations owe their preservation to the fact that when (by ploughing) the turf is removed from an area of ground and the soil is disturbed, there is a tendency for the latter

to travel downhill and to form an accumulation at the lower edge of the plot at the expense of that at the upper edge. Such an accumulation, even on a very moderate slope, becomes in time a very marked bank, which is called by various names, the commonest of which are "lynchet," "lynch," or "balk." It is necessary to realise that such terraces have not been formed intentionally, but are the result of ploughing; and, conversely, that apart from disturbance of the soil, including the removal of the turf, such lynchets cannot form. The presence, therefore, of lynchets in connection with a plot of ground amounts to proof positive that the surface of such a plot has been cultivated. The importance of this point will appear later.

The lynchet-fields of the chalk hills of S.E. England fall into two main classes: (1) long, narrow, *co-terminous* strips, roughly corresponding to the statute English acre or half-acre (viz. 660 by 66 or 33 feet); these fields are medieval or fairly recent; and (2) fields which bear no resemblance to the English acre, but which are found invariably to antedate any medieval structures and sometimes also Roman remains with which they may come into relation, while they are organically connected with the sites of early Iron Age or Romano-British settlements.

Such plots are square or oblong, varying from 100 feet square to 300 by 200 feet, or 400 by 150 feet. Rarely is the length of any one plot more than about 400 feet, or the breadth less than 100 feet, though the area is commonly between $\frac{1}{2}$ and $1\frac{1}{2}$ acres. They are almost always rectangular and their boundaries rectilinear, except where the nature of the ground necessitates a curve or other irregularity.

There is a further fundamental difference between this field-system, and that introduced by the Saxons. The former was a hill-system, the latter a valley-system. The Britons were a hill-folk, dwelling on hill tops, from which their fields spread down into the valleys. The Saxons, on the other hand, were a valley-folk and laid out their fields in such a way that they radiated out from their valley homes and crept up into the hills. Mr. Crawford has clearly shown this difference in the distribution of village-sites in Wilts, and the same difference is even more marked in Sussex where the Saxons left the Downs almost entirely uninhabited after exterminating the British population at the siege of Anderida, and themselves settled in the forest of the Weald, on the coastal plain, and in some of the larger valleys of the Downs. The writer is unacquainted with a single British settlement in Sussex situated



Crofter using a Casherom.

in the bottom of a valley, while English manors situated on hills are the exception rather than the rule. These distinctions are fundamental, and of the highest importance in archaeology, for once the characteristics of the Celtic field-system are realized they provide a useful date-standard by which to judge the roads and earthworks with which their lynchets may happen to come into relationship. Thus lynchets of this system are sometimes found to be older than hill-top camps, as is the case at Bathampton Down (Bath), and sometimes contemporary, as at Woolbury and Lidbury. Lynchets, too, which antedate a small Romano-British barrow near Brighton are contemporary with a very fine stretch of long-disused road.

In air-photographs the outlines of Celtic fields can be traced even where the lynchets have been destroyed by modern ploughing. This is because the chalk of which the lynchets were largely composed forms whitish lines which contrast with the darker soil of the modern field. Very complex pictures are sometimes revealed by this method—Celtic fields overlaid by English acre-strips, and these in turn, perhaps, by more recent ploughing.

The outcome of this is a very practical illustration of the completeness of the breach caused by the Saxon Conquest, at any rate in the south-east of Britain, and it emphasizes the fact that the long English strip-acre, whatever its origin, was not native, but was introduced by the Saxons.

What then is the origin of these strip-acres of which the English system affords an example and which seems to have come to us from the corn-growing regions of south Europe?

The shape and size of any field is governed more than anything else by the type of plough used in cultivating it. We have already seen how the ordinary Roman and British plough-share merely scratched a shallow groove in the soil—a most ineffective way of aerating it. In view of this Pliny and Virgil tell us that every field ought to be ploughed both longitudinally and transversely, the better to loosen and break up the soil. In order to make such cross-ploughing possible, the Roman “acre” was broad in proportion to its length, and had a furrow only 120 feet long, which was considered long enough for two oxen at a single draught. Pliny, however, tells us that there *was* a type of plough-share which had a broad blade which undercut the sods and turned them over as our modern ploughs do. This kind is mentioned in connection with Rhaetia, and may well have been a South-German

invention. The effect of such a plough would be to do away with the need for cross-ploughing, and so a lengthening of the furrow at the expense of the width of the acre was made possible, thus saving time lost in unnecessary turning of the plough. To make a longer furrow possible a larger team of oxen is necessary so that they may not be exhausted and in this way we see a probable origin of the long strip-acre and the eight-ox plough-team which forms such a contrast to the two-ox team of the Greeks, Romans and Celts.

In the process of time this type of acre was carried across northern France and introduced by the Saxons to Britain, where it seems to have supplanted the Celtic system not only in the parts conquered by the Saxons, but the eight-ox team and the long acre seems to have found their way into Wales, Scotland and Ireland, and to have formed an integral part of the tribal systems there, with the communal ploughing that was practised.

So much for the Celtic and Saxon systems. What were the fields of the Bronze Age like? There is very little evidence to show that any of the lynchets of the chalk hills go back to this period. For the most part the cultivation of the chalk hills in early Iron Age times was so intensive that traces of earlier cultivation would be little likely to survive.

We are bound, therefore, to seek elsewhere for traces of what we want, and we fortunately find it in Dartmoor, a very wide field of research. Dotted all over the moors are little groups of hut-circles forming villages and hamlets of very varying plan. Very little was found in most of the huts, but such as was found seemed to point to their having been occupied from the beginning of the Bronze Age, and little, if anything, could be assigned to the early Iron Age. None of the huts show evidence of tin-working and many while containing charcoal, cooking-stones, and worked flints, yielded no pottery at all. They are associated with round barrows, two of which have been found to contain beakers.

Some of these groups of hut-circles are surrounded by roughly circular enclosing walls, others lie unenclosed on the open moor, while others again have numerous small walls enclosing irregular spaces between the huts. A fourth kind is integrally associated with more or less rectangular enclosures arranged in rows. A close examination shows that a slight, but very definite, degree of lynchetting is to be found in some, but not all, of these enclosures. This, as was emphasized above, is a certain sign of the ground having been disturbed by agriculture. By far the most elaborate

and finished set of such rectangular fields is to be seen close to Kes Tor (or Castor) Rock, Batworthy, near Chagford. Similar rectangular and strongly lynched fields associated with well-built hut-circles are to be seen at Foale's Arrishes, near Rippon Tor.

More usual are slightly lynched plots, very small and irregular in shape, and evidently earlier in type than those we have been considering. The amount of corn that could have been grown on them must have been very small, but that corn was actually grown there is proved by the finding of parts of saddle-querns in two such settlements, one on White (or Whiten) Ridge, near Postbridge, and the other on Standon Down, by the river Tavy.

Another type of corn-plot is extremely interesting, because it probably represents the very beginnings of agriculture in this country. A good example exists about half-a-mile south-east of Trowlesworthy Warren House in the parish of Shaugh Prior, where are eight oval enclosures surrounded by the remains of stone walls, each containing three or four hut-circles, with a few other huts scattered about outside. These enclosures, of which the greater diameter varies from 100 to 250 feet, are each markedly lynched but the amount of levelling so produced is negligible, thus putting out of court any suggestion that they had been intentionally levelled.

These eight enclosures evidently represent as many separate homesteads, each consisting of three or four huts, and in all probability dating from the beginning of the Bronze Age, if not from the end of the neolithic period. Our study of the origin of the plough in the last section would lead us to expect that at such an early period a mattock, hoe, or digging-stick would be the only tool used for breaking up the ground. With such an implement the shape of the plot cultivated would be immaterial since no furrow was made. The scarcity of grain would be likely to preclude extensive cultivation, and where so natural a place for it to be carried on as round and between the huts that go to form the dwelling? Equally naturally will the plot be ringed round with a dry stone wall, partly to protect the crop from the cattle and partly as a dump for stones collected from the surface. A few large boulders lying about will inconvenience the free progress of the digging-stick no more than will the huts, awkwardly placed, as we should think them, right in the middle of the corn. This type of plot, therefore, corresponds with what we should call a garden rather than a field.

As time goes on and communities increase we see these huts

with their corn-plots huddled together in close contiguity, and the latter necessarily take on irregular shapes to fit in with their neighbours. It is noticeable that anything approaching a straight line in the boundaries of the plots seems to have been, as far as possible, avoided. In those days the curved line of beauty was evidently esteemed more highly than the straight line of duty.

When, however, the irresponsible mattock or digging-stick gives place to the caschrom, or foot-plough, we have at last an instrument that makes a furrow. For satisfactory furrows a straight-sided plot is a desideratum, and in this way the rectangular field is evolved, such as we have seen at Kes Tor and Foale's Arrishes. With the introduction of the two-ox plough more work can be done in a day, and consequently the furrow is made longer and the field larger. We have already seen how the introduction of the eight-ox plough lengthened the furrow still more, and the same process is at work to-day on the unenclosed areas of the chalk Downs, where motor ploughs have made possible enormous fields with immensely long furrows.

On Bodmin Moor, in the neighbourhood of Brown Willy, Rough Tor and Garrow Tor, two contrasting types of ancient fields may be seen to advantage, the one, small irregular plots connected with hut-circles, and the other rectangular "acres," probably medieval, closely resembling the Breton *arpent*, and still showing longitudinal ridges averaging $7\frac{1}{2}$ feet wide. Both types show good lynchets.

METHODS OF CULTIVATION.

We have so far discussed the shape, size and general outlay of the ancient fields in relation to methods of ploughing. It remains to be seen whether there is any evidence as to the methods of cultivation adopted.

The inhabitants of the Dartmoor hut-circles were in all probability nomad or semi-nomad herdsmen who never inhabited one site for very long. This is borne out by the scarcity of relics found in the huts, and also by the slight degree of lynchetting the fields have undergone. Like the patriarch Isaac, himself a nomad herdsman who "sowed in that land, and found in the same year an hundred-fold, and . . . departed thence," these nomads, who were probably his contemporaries, may have inhabited a village for from one to five years, until the corn plots were exhausted, and then moved elsewhere. Such methods of agriculture demand, and provide, no manorial treatment to maintain the fertility of the soil.

Unfortunately manuring is not a process which leaves any permanent archaeological evidence behind it. When, however, one sees, as one does, at Kes Tor and Foale's Arrishes, rectangular fields, sometimes with considerable lynchets with no visible evidence of any two-field or three-field rotation of crops, one is justified in assuming that some sort of manorial treatment must have been adopted, even if it was only the folding of the cattle on the fields in winter.

When we return to the early Iron Age and the Celtic field-system as we have it revealed on the chalk-hills, we find definite evidence of long-continued cultivation in the enormous lynchets which are frequently as much as 8 feet high, and occasionally as high as 18 feet. As yet we have no sufficiently complete plan of the fields of any one settlement to say whether they appear to have allowed for a two- or three-field rotation, as was the rule in the English open-field system. Manuring must have thoroughly been done, for we know from several classical writers that great quantities of corn were grown in Britain at any rate between 325 B.C. and A.D. 360. Pliny also describes the way in which the Britons marled their fields with chalk obtained from very deep pits—a process which tends to overcome the acidity of the surface soil, and which, according to experiments carried out by Sir John Russell, D.Sc., is definitely beneficial to some crops, such as barley. Whether potash was applied in the form of wood ash we have no knowledge; but that such a process was an ancient one is suggested by a passage in the *Mabinogion*, to which Sir John Russell has kindly drawn our attention, where Killhwch was commanded to cut down trees, burn the branches, and spread the ashes on the fields as manure.

CONCLUSIONS.

We may sum up the evidence regarding prehistoric agriculture in this country as follows :—

- (1) Traces of agriculture first appear during the neolithic period (about 2500–1800 B.C.).
- (2) During the early Bronze Age corn-plots were small and irregular, were probably tilled with a digging-stick or mattock without furrows, were reaped with serrated flint flakes set in wooden sickles, and were abandoned as soon as they became exhausted. Corn was ground on saddle-querns.

- (3) During the latter part of the Bronze Age the fields probably came to be tilled with some sort of foot-plough making a furrow, and therefore assumed a rectangular shape. They were reaped with Bronze sickles, at first flat, and later socketed, and corn continued to be ground in saddle-querns. The two-ox plough was possibly introduced latterly.
- (4) The Early Iron Age probably saw the spread of the use of the two-ox plough, bringing with it rather larger rectangular fields. Corn was reaped with iron sickles. This period saw the gradual introduction of rotary querns.
- (5) The Roman period saw no marked changes in agricultural conditions.
- (6) The Saxon conquest caused a complete break of continuity introducing eight-ox ploughs and long, narrow strip-fields, with valley settlements and the neglect or destruction of the preceding system, at any rate in the south-east of Britain.

III.—DUTIES AND LIABILITIES OF AUCTIONEERS.

By Hon. D. Meston.

The duties and liabilities of an auctioneer cover a considerable field, and we do not propose, therefore, to enter into all the details of his professional status and activities. It may be interesting, however, to deal with some of the prominent and most common matters relating to the legal position of an auctioneer.

In the first place, What is the authority of an auctioneer and to what degree does that authority extend? Now, an auctioneer may sell property of his own as principal and is under no obligation to disclose the fact that he is selling as such. But when he sells as an agent, he is the agent of the vendor only, except for the purpose of signing the contract or a memorandum thereof, for which purpose he is the agent of both the vendor and the purchaser. Where a reserve has been fixed by the vendor, the auctioneer has no implied authority to sell without reserve. In *McManus-v.-Fortescue* (1907) 2 K.B. 1, at a sale by auction subject

to a reserve price on the article sold, the fact that there was a reserve was known; nevertheless, the auctioneer knocked down the article to a bidder who bid a less price than the reserve. It was held by the Court of Appeal that the bidder had no right of action against the auctioneer, either for breach of duty in refusing to sign a memorandum of or otherwise complete the contract, or for breach of warranty of authority to accept the bid. For, as *Lord Justice Fletcher Moulton* said (at pp. 6, 7): "A principal who gives authority to an auctioneer to sell subject to a reserve gives no power to the auctioneer, either expressly or impliedly, to accept a less price. . . . In a sale by auction with notice that it is subject to a reserve every offer by the auctioneer, and every bid, including the final one, and the acceptance of that final bid indicated by the fall of the hammer, is conditional."

As to the authority to accept payment, the implied authority of the auctioneer extends to receiving the deposits on sales both of lands and goods, and to receiving the purchase-money on sales of goods, but not on sales of land; this implied authority may, however, be excluded by the express terms of the conditions of sale. Thus, in *Sykes-v.-Gill* (1839) 5 M. & W. 645, on a sale by auction of certain timber, the only authority given to the auctioneer by the conditions of sale was to receive the deposit money, the vendor reserving to himself or his agent the power to receive the remainder of the purchase-money. The defendant purchased some of the timber, and paid the deposit and drew a bill of exchange for the residue of the purchase-money; when the bill became due the amount thereof was never transferred to the vendor. It was held that (1) the auctioneer had no authority to receive the remainder of the purchase-money, and (2) even if the auctioneer had had authority to receive the remainder of the purchase-money, he had no authority to receive it by way of a bill of exchange for a cash payment was intended. Finally, although the auctioneer has authority to receive payment of the deposit by cheque, he is not compellable so to do. In *Johnston-v.-Boyes* (1899) 2 Ch. 73, the successful bidder was, and was known by the auctioneer to be, a person who had sworn a short time previously in an action in the County Court that he possessed nothing but the clothes he stood up in. In those circumstances the auctioneer very wisely refused to accept the bidder's cheque, and his refusal was subsequently held justified by the Court. As *Mr. Justice Cozens-Hardy* said (at p. 78): "I do not think any custom has been proved to oblige vendors to receive the cheque even of a person in good

credit, though it is, doubtless, usual to do so. And certainly no such custom would bind vendors to accept a cheque from a pauper."

An auctioneer entrusted with goods for sale by public auction has no implied authority from the vendor to warrant them. In *Payne-v.-Leconfield* (1882) 51 L.J. (Q.B.) 642, the auctioneer employed by the defendant warranted the condition of a mare which he was selling by auction in the following manner: At the sale the mare was observed by a bystander to have a discharge from her nostrils, whereupon the auctioneer said, in the plaintiff's hearing: "You need not be afraid. The mare comes from Lord Leconfield; she has only got a cold upon her, and I shall sell her as only having a cold." The mare was knocked down to the plaintiff for eight and a half guineas. The mare was subsequently pronounced to be suffering from chronic glanders, and was eventually shot under an order of the local authority. It was held that the auctioneer had no authority to give any warranty as to the condition of the mare. In such a case the auctioneer may render himself personally liable to the purchaser for breach of warranty of authority.

When the property has been knocked down the auctioneer's authority is terminated save for the purpose of carrying out the contract made at the auction. The auctioneer is not empowered to rescind the contract or to introduce any stipulations as to title.

The auctioneer, in the absence of special circumstances, is impliedly the agent of both the vendor and the purchaser for the purpose of signing the contract or a note or memorandum thereof to satisfy the Law of Property Act, 1925, Sec. 40, in the case of land, and of the Sale of Goods Act, 1893, in the case of goods. As Lord Justice Lawrence said in *Chaney-v.-Maclow* (1929) 1 Ch. 461, 477: "The Court cannot lay down any definite period of time during which the authority persists. The true principle is that the authority must be exercised so as to form part of the transaction of the auction sale." As to what does and does not form part of the transaction of the auction sale we may usefully refer to the following cases: In *Mews-v.-Carr* (1856) 1 H. & N. 484, the plaintiff put up for sale by auction some timber, several lots of which were sold. A few days afterwards the defendant called on the auctioneer and selected from the catalogue two of the unsold lots, which he agreed to purchase; the auctioneer then wrote in the defendant's presence his name in the catalogue opposite these lots. It was held that there was not a sufficient note or memorandum of the bargain. Likewise, in *Bell-v.-Balls* (1897) 1 Ch. 663, where the auctioneer

had signed a memorandum as agent for the purchaser a week after the sale, and the purchaser had repudiated the purchase at the time, it was held that the auctioneer's authority had ceased and there was no memorandum in writing sufficient to satisfy the requirements of the Statute of Frauds (now the Law of Property Act, 1925, Sec. 40). On the other hand, in *Chaney-v.-Maclow* (*supra*), at a sale by auction of freeholds, a dwelling-house was put up and knocked down to the defendant, who, upon being asked by the auctioneer's clerk, refused to sign the memorandum on the particulars on the ground that by one of the conditions of sale, which he had not noticed until just previously, the purchaser was required to pay certain road-making charges. The purchaser left the sale room without interviewing the auctioneer or repudiating the contract. The auctioneer then wrote the purchaser's name in the particulars before him, and returned to his office after the sale, where, after ascertaining that the purchaser had not called to pay the deposit or sign the memorandum, he signed it himself as agent for the purchaser. The purchaser a week later repudiated the contract. It was held by the Court of Appeal that the auctioneer's signature of the memorandum at his office could fairly be held to be part of the transaction of sale, and that therefore the auctioneer's authority still persisted at the time of such signature.

It is also well to remember that where possession of goods is not given under the contract or memorandum signed by the auctioneer, the document may amount to a bill of sale and require registration. Thus, in *Roberts, Re: Evans-v.-Roberts* (1887) 36 Ch. D. 196, at a sale of farm produce by auction, one W. bought a stack of hay for a certain sum. The auctioneer's clerk signed the name of W. as purchaser in the auctioneer's book, which was also signed by the auctioneer, and contained a copy of the conditions of sale, and specified the lot and the price. No part of the purchase-money was paid, one of the conditions being that the purchaser was to have six months' credit, and the whole of the hay remained on the premises of the vendor and in his apparent possession. Later the hay was seized in execution under a judgment obtained by creditors of the vendor. It was held by *Mr. Justice Kay* that the memorandum was a bill of sale within the Bills of Sale Act, 1878, and therefore void as against the execution creditors as it had not been registered. On the other hand, in *Charlesworth-v.-Mills* (1892) A.C. 231, the owner of household goods which had been seized under a writ of execution agreed verbally with an auctioneer that in consideration of his paying out the sheriff the auctioneer should hold

possession of the goods, sell them by auction and pay over the balance (if any) to the owner. This agreement was reduced into writing and the sheriff was paid out, the man in possession remaining in possession for the auctioneer. It was held by the House of Lords that since the written agreement did not constitute the auctioneer's title, and was not intended to, and did not, come into operation until possession had been actually transferred from the sheriff to the auctioneer, it was not in any respect a bill of sale within the Bills of Sale of Acts, 1878, and 1882.

The rights and duties of an auctioneer in relation to his vendor may be summarised as follows :—

(1) He must display such skill and knowledge as is reasonably expected from competent auctioneers ; and he will be liable for a breach of any duty in damages.

(2) As he is a bailee for reward, he must exercise ordinary care and diligence in keeping the goods intrusted to him.

(3) Unless authorised by the vendor to do so, he must not part with the possession of the goods until the purchaser has paid the price. If the auctioneer does part with possession until the price has been paid, and the purchaser fails to pay subsequently, the auctioneer will be liable to the vendor for the price.

(4) Except where his right of lien exists, the auctioneer must re-deliver goods to the vendor on demand, either before sale if the authority to sell is revoked or after the sale if the goods are unsold.

(5) He must sign a proper contract binding the purchaser ; if he omits to do so, he is liable to the vendor for any damages sustained in consequence of his neglect. In *Peirce-v.-Corf* (1874) L.R. 9 Q.B. 210, the plaintiff sent a mare to be sold by auction at the defendant's depository. The defendant duly advertised the mare for sale by auction on the 28th March, 1872, and circulated a printed catalogue of the horses to be sold at the sale, with conditions of sale annexed, in which the plaintiff's mare was described as lot 49. The defendant had a sales ledger, which was headed "Sales by auction, 28th March, 1872," in which the plaintiff's mare was numbered 49 ; but neither the catalogue nor the conditions of sale were annexed to the sales ledger, nor were they referred to therein. On the 28th March, 1872, the lots described in the catalogue were put up by the defendant for sale under the conditions. The plaintiff's mare was knocked down to M. for £33, and thereupon the defendant's clerk wrote in the columns of the sales ledger left blank

for this purpose the name of M. as purchaser and the price. M. afterwards declined to take the mare. It was held that the catalogue and conditions of sale were not sufficiently connected with the entries in the sales ledger to constitute a note or memorandum of the contract. For, as *Mr. Justice Blackburn* pointed out (at p. 214): "In order to make a valid contract, the document the auctioneer signs on behalf of the buyer must contain all the terms of the contract; the contract being, in fact, subject to the conditions contained in the catalogue, and the purchase being at the price noted at the time." Incidentally it may be noted in connection with the above case—though it made no difference to the decision which was given, as observed, on another point—that the entry by the clerk of the auctioneer was not binding on the purchaser, for an auctioneer is himself an agent and an agent cannot delegate his powers to another agent.

(6) He must not purchase himself without the consent of the vendor; such a purchase, if made, is voidable and will be set aside at the instance of the vendor, even after a long lapse of time. Thus, in *Salomons-v.-Pender* (1865) 3 H. & C. 639, an agent employed to sell land, sold it to a company in which he was interested as a shareholder and director. It was held that the agent was entitled to no commission from his employer in respect of the sale.

(7) He must account for, and pay over, moneys received by him on behalf of the vendor. In *Crowther-v.-Elgood* (1887), 34 Ch.D. 691, it was clearly laid down by the Court of Appeal that an auctioneer is a person acting in a fiduciary capacity within the meaning of the Debtors Act, 1869, sect. 4 (3), and if he makes default in payment of the money produced by the sale of goods entrusted to him for sale when ordered to pay it by the Court he is liable to attachment, whether he still holds the money or has parted with it. Nor does it make any difference that the vendor has been dilatory in demanding the money, for as *Mr. Justice Channell* said in *Henry-v.-Hammond* (1913) 2 K.B. 515, 520: "Where the duty of persons is to receive property, and to hold it for another, and to keep it until it is called for, they cannot discharge themselves from that trust by appealing to the lapse of time. They can only discharge themselves by handing over that property to somebody entitled to it."

(8) He has a lien on goods entrusted to him for sale and on the deposit and purchase-money, for his charges and remuneration. This lien attaches to goods whether they are sold at the auctioneer's premises or at those of the vendor.

(9) He is entitled to be indemnified by the vendor for any expenses incurred or damages sustained in the course of his employment as auctioneer. Thus, moneys paid by an auctioneer to protect the goods from a distress as long as the goods remain the property of the vendor may be recovered by the auctioneer from his principal. But this does not apply to moneys paid after the sale, and when the property has passed to the purchaser. Thus, in *Sweeting-v.-Turner* (1872) L.R. 7 Q.B. 310, the defendant, an auctioneer, sold certain goods for the plaintiff, the owner thereof, on premises occupied by the plaintiff and another person, and in respect of which the latter owed the landlord rent. By the conditions of sale each lot was to be taken to be delivered at the fall of the hammer, after which time it was to remain at the exclusive risk of the purchaser. After the sale, and before the goods were removed, the landlord threatened to distrain on the goods, whereupon the auctioneer paid the rent, and deducted it from the amount the goods had realised, and paid over the balance to the plaintiff. It was held that the plaintiff was entitled to recover from the auctioneer the amount of the rent so paid by him. Moreover, the right of the auctioneer to be indemnified by the vendor extends to a case where property for sale has been received in good faith from a principal who was not the true owner and the auctioneer has been made liable for conversion. But the auctioneer is not entitled to this indemnity where he is made liable in consequence of an act which is not a wrongful act done in pursuance of his employment. This proposition is best explained by the case of *Halbroun-v.-International Horse Agency and Exchange Ltd.* (1913) 1 K.B. 270, where the defendants instructed the plaintiff, an auctioneer carrying on business in Paris, to advertise for sale a mare which they represented to him was a thoroughbred mare entered and described in the English Stud Book under the name of Pentecost. The plaintiff accordingly advertised the mare for sale as so named and described. A Frenchman, the owner of a thoroughbred mare also called Pentecost, brought an action in France against the plaintiff, alleging that he had suffered damage through the defendants' mare being advertised for sale under that name, and recovered damages. In an action by the plaintiff against the defendants for an indemnity, it was found as a fact that the representation made by the defendants as to the identity of their mare was true. It was held by *Mr. Justice Bruce* that the defendants were not liable to indemnify the plaintiff, for the damages recovered by the Frenchman from the plaintiff were not due to any wrongful act on the part of the defendants.

Dealing with the rights and liabilities of an auctioneer in relation to purchasers, the general rule of law in this connection may be stated as follows : Where an auctioneer purports to make a contract for a principal to sell goods, disclosing the fact that he is acting as an agent, but not disclosing the name of his principal, the auctioneer is personally liable to the purchaser if it afterwards appears that the principal had no right to sell, it being presumed that the purchaser would be unwilling to contract solely with an unknown man. But this presumption does not exist where a specific chattel is so sold, it being impossible to suppose that a purchaser would impose on an auctioneer accept such a liability. Hence, in *Benton-v.-Campbell, Parker and Co.* (1925) 2 K.B. 410, where auctioneers, disclosing the fact that they were selling as agents but not disclosing the name of their principals, sold a motor car by auction, it was held by *Mr. Justice Salter* that the auctioneers were not liable to the purchaser on it afterwards appearing that their principals had no right to sell. As the learned Judge pointed out in the course of his judgment : " An auctioneer who sells goods not as owner but as auctioneer only, though not naming his principal, does not, without more, warrant the title to the goods sold ; he does no more than engage that he is in fact instructed and authorised by his principal to sell . . . but he does not guarantee the title of his employer to the goods . . . The auctioneer cannot question his principal about his right to sell, and the buyer is well aware of the auctioneer's position."

In conclusion we may mention one important matter relating to the liability of an auctioneer to third persons. This refers to conversion, a peril to which an auctioneer may expose himself where his principal is not entitled to sell. If an auctioneer only settles the price as between vendor and purchaser of goods, and takes his commission, he is not liable for conversion if the vendor is not entitled to sell. But where an auctioneer receives goods into his custody, and on selling them hands them over to the purchaser with a view to passing the property in them, he is to be treated as having converted the goods, and is liable to an action accordingly, his case differing from that of a packing agent or carrier in that they merely purport to change the position of the goods and not the property in them. Thus, in *Consolidated Co.-v.-Curtis and Son* (1892) 1 Q.B. 495, the owner of certain household furniture assigned it by bill of sale to the plaintiffs. Subsequently to the assignment, the assignor employed the defendants, a firm of auctioneers, to sell it by auction on her behalf at her private residence

The defendants, who had no notice of the bill of sale accordingly sold the furniture at the assignor's residence, and in the ordinary course delivered it there to the purchasers. It was held by *Mr. Justice Collins* that the auctioneers were liable for conversion.

IV.—WATER MEADOWS.

By G. N. Rawlence, M.C., F.S.I., F.A.I.

Much attention has lately been paid to the question of the intensive cultivation of grassland, and this attention, skilfully guided by interested parties, has tended towards the study of artificial manuring in relation to this subject.

For between two and three centuries, Wilts, Hants and Dorset have in their water meadows possessed a most complete and efficient system of intensive grass production. This system, carefully watched and kept at a high state of efficiency up till the beginning of the 20th century, has since that date, and especially since the War, been neglected and allowed on many farms and even on whole estates to become derelict.

It would be folly to contend that every water meadow ever laid out should be maintained as such, for there is no doubt that, in their enthusiasm, some of the originators of the system laid out areas as water meadows which had better have been left in their natural state, and again other areas which no doubt originally received a sufficient volume of water are now through various causes not capable of being adequately watered. The process of allowing water meadows to become derelict has however been applied to hundreds of acres which (whilst they may for a few years retain some feeding value) will eventually degenerate into a marsh of little value to anyone but the sportsman.

Let us compare the intensive grass cultivation under artificial manures and the water meadow :—

- (a) The capital expenditure on the water meadow is finished ; in most cases considerable outlay is necessary for fencing, water, etc., with the artificial manures system.
- (b) Annual expenditure on repairs and upkeep will certainly come to more on water meadows.

- (c) Annual expenditure on cultivations will not much exceed 20 - per acre on water meadows, but the cost of the annual manuring on intensive grasslands is in the neighbourhood of 18 - to 40/- per acre, according to circumstances.
- (d) Grass in water meadows comes earlier and maintains growth later than with any other method.
- (e) A dry year such as 1921 or 1929 benefits water meadows but is deadly to the artificial manure system, where the surface dries up and remains as bare as a board. In fact in modern intensive grassland management climate (*i.e.* rainfall) is the limiting factor; whereas **with water meadows** there is no limiting factor.
- (f) Grass produced under the artificial manuring system probably has more nourishment in it than the growth of the water meadow, though the latter undoubtedly acts as a great stimulant to milk production.
- (g) Cultivations on water meadows do not interfere with the ordinary farming routine to the same extent as cultivations in the intensive grass land systems which have to be done at the right moment, regardless of other considerations, if the system is to be a success.

It will be seen from the above that only in cases (b) and (f) has the artificial manuring system the advantage.

It is hoped that the foregoing notes on the utility of water meadow may at least help to arrest the deterioration in their management which has of late been so noticeable.

Very little is known of the origin of the water meadows, but Mr. G. E. Fussell, of the Ministry of Agriculture, who has made a study of the matter, states that water meadows were constructed in the Wye Valley in the latter years of the 16th century, in the Puddle Valley, Dorsetshire, at the end of the 18th century, and that there is proof they existed in Gloucestershire at the end of the 18th century and in "The Hundred of Chalke" just South-West of Salisbury in 1635.

Major Jervoise, the owner of the Britford Meadows, has kindly made extracts from some old estate accounts which show that some of those meadows were in course of construction during the years 1694 and 1695. Two extracts are given below, and these show how extremely cheap was the price of labour in those days.

- (1) March 28th 1695, measured part of a small main carriage for to water the long strip of ground west side of the West Main Drayne next the part of the marsh which is Lay or dry ground which carriage is to take the water out of the drayne that doth draw the water out of Barfitt street which water is to drowne the said percell of ground.

Will thorne and his partners for 4 luggs* in length at the head of him in blacke ground the breadth 5 foot 6 inches and in depth 17 inches at $\frac{1}{2}$ per foot diginge and $\frac{1}{2}$ per foot more for wheelinge it away comes to 8 per lug 0 2 8
 Them for 10 luggs more in length in hard graud and cley breadth 5 foot 6 inches and in depth 2 foot at 1d— $\frac{1}{2}$ per foot diginge and $\frac{1}{2}$ per foot more for wheelinge and placeinge is 1s. 10d. per lugg .. 0 16 8
 Then for 30 luggs one halfe more in length and in breadth 5 foot 6 inches and in depth 1 foot 11 ynches at but 1s. per foot diginge and $\frac{1}{2}$ per foot for the wheelinge it is 15— $\frac{3}{4}$ per lug 2 0 0

- (2) Aprill 5th 1695, measured more of the said maine carriage in the sling of ground next the Lord Coleraines.

William Pinson and his partners for 3 lugs in length of the said maine carriage and in breadth at the partinge with a poynt of grownd they tucke of beside the ditch the planters diged 10 foot 6 ynches and in depth 17 ynches in blacke ground at $\frac{1}{2}$ per foot diginge is 7 $\frac{1}{2}$ d. per lug and for their wheelinge of one halfe of it 18 lugs of att 1d. per foot for 12 lugs of is 10d $\frac{3}{4}$ per lug now in all 1s-6d— $\frac{1}{4}$ per lug 0 4 6

Mr. William Tatham, who wrote a book entitled “National Irrigation” in 1801, states that “Many of the most valuable and best formed meadows, particularly in the Wyley Bourn, were made under the directions of one farmer Baverstock, of Stockton, between the year 1700 and 1705.”

He estimates the original cost of the water meadows in Wilts to be from £12 to £20 per acre, and the cost of “keeping up the works and watering it frequently not exceeding 5/- per acre yearly.”

Here we have a period of over 200 years during which our watering systems were constructed, and it is reasonable to suppose from the exactness of the lay out that each complete system was planned

*Lugg=pole or patch.

in connection with systems above and below, and most of the work in any particular section of a valley was carried out as part of a comprehensive scheme for the whole valley.

Presumably at the same time schemes of watering were arranged and the times during which various groups of meadows were entitled to the water were set out. These "times of watering" are almost invariably known as "Stems." Some of these schemes have since, as a result of disputes, been set out and possibly varied by Awards, in other cases the original schemes must be presumed to be in operation, the detail having been handed on by word of mouth from one waterman or drowner to his successor.

The water courses are divided into "Carriers," which take the water from the main stream and lead it by high level on to the land, and "Drawings," which collect it at low level and return it again to the main stream at a lower level.

It is essential that these Carriers and Drawings should be kept at their proper level, slope and taper, the Carriers being diminished from broad at top to narrow at bottom in order regularly to distribute the water over the whole meadow, and the Drawings *vice-versa* in order to draw it off quickly.

There is an old saying that the water should "come on at a trot and go off at a gallop," and herein lies the whole secret of a successful water meadow.

The routine work is roughly as follows :—

End of September. Cut out Main Drawings and put the clods along the edge of Main Carriers.

Early October. Cut out Carriers.

Mid-October. Water turned in and stops arranged in Carriers to throw out water where it is not being properly distributed.

Later. Throw out minor Drawings and put clods on main Carrier banks.

The arranging of stops should not really be necessary if the original levels and taper or gradual diminishing of the Carrier had been maintained, as this was originally so planned that the water was gradually and evenly forced out. Care should be taken not to deepen drawings and carriers so much that pools are formed. Standing water is fatal and it must always be kept running.

Water meadow work is generally contracted for at from 15/- to

18/- per acre per annum plus 2/- per acre for managing the water and doing such other essential work as may be necessary in summer. Needless to say, a really good drowner is half the battle.

Chalk is required, and every year at any time when horses are available and the meadows dry enough, hauling of chalk to low and boggy places should be carried out. It need only be tipped out on the surface, and will of itself sink in and heal over.

All is now ready to obtain an early feed of grass, and the water should be used regularly when the "Stems" allow of it. It should be borne in mind that early grass has to be *grown before Christmas and kept*; it cannot be grown after. Keeping it is done merely by continuing the watering. If possible in a cold snap have the water running over the earliest grass, but never turn the water out of the meadow whilst frost is about. Possibly the earliest recorded turn out was that at Rectory Farm, Britford, on February 6th, 1893, and cows fed the meadows continuously from then till October. A very wet Spring may delay turning out even if the grass is sufficient as the ground gets so badly trodden.

Close grazing is essential, and after grazing, water should be run over the field again before cows are returned to it. Folding the water meadows by day with sheep in the spring is excellent for them, providing as it does close grazing and treading that firms the ground. Unfortunately, this practise has almost disappeared, mainly on account of the disappearance of the flocks of sheep. When feeding the water meadows the sheep were always folded in the arable at night, thus providing an excellent dressing for the arable land. Mowing, owing to the cost, is now unfortunately prohibited. After this first feeding in the Spring all Carriers should be looked over and loose clots picked out and put on the edge again. Weed cutting in the Carriers and Main Drawings should be carried out at the end of April, again in July, and in some cases again in the Autumn; thus ensuring the free running of the water on to the meadow and the free drainage away.

Only by the means briefly outlined above can the meadows be kept really efficient, and it is, I think, the neglect of these rules and consequent deterioration of the meadows that has produced a feeling amongst many owners and farmers that water meadows are not worth maintaining.

I am indebted to Mr. H. H. Dunn for a list of water meadow grasses as follows :—

Good Herbage.

Rough stalked Meadow Grass.
Meadow Foxtail.
Perennial Ryegrass.
Timothy.
Wild White Clover.

Inferior Herbage.

Floating Foxtail.
Floating Sweet Grass.
Tufted Hair Grass.
Reed Canary Grass.
Marsh Bent.
Tall Fescue.
Reedy Sweet Grass.
Common Reed.
Purple Flowered Small Reed.

V.—EXPERIMENTS ON THE MANURING OF SUGAR
BEET ON ACID SOILS.

*By A. W. Ling, M.Sc., N.D. A., Dip. Agric.,
and W. R. Muir.*

(University of Bristol).

The experiments outlined in this report were initiated in order to ascertain the usefulness of basic slag as a phosphatic fertiliser for sugar beet grown on acid soils. In addition, it was hoped that by means of certain control plots there might be obtained some indication as to the “lime” value of slag on such soils.

Two experimental centres were chosen, one in Herefordshire and one in Worcestershire. In both cases crop failures had occurred in previous seasons as the result of shortage of lime in this soil.

Table I contains information with regard to the soils at each centre.

TABLE I.—SOIL DATA.

	Pencoyd, Herefordshire.	Shrawley, Worcestershire.
Geological Formation	Old Red Sandstone	Keuper Sandstone and Bunter Drift.
Soil Texture	Sandy Loam	Sandy Loam
Lime Requirement % ⁽¹⁾	0.09	0.16
Exchangeable Calcium % ⁽²⁾ ..	0.137	0.119
" Available " Phosphoric Acid ⁽³⁾	0.0165	0.025

(¹) Hutchinson, McLennan Method.

(²) Hissink Method.

(³) Denotes soluble in 1% Citric Acid solution.

It will be seen that at both centres the soils are Sandy Loams and that they are deficient in lime. For soils of this type, however, the percentage of "available" phosphoric acid cannot be considered as low.

The following is a sketch plan of the plots :—

PLOT I	PLOT II	PLOT III	PLOT IV
10 cwt.	4 cwt.	8 cwt.	No.
BASIC SLAG per acre.	SUPER- PHOSPHATE per acre.	SUPER- PHOSPHATE per acre.	PHOSPHATIC MANURE. ---

Each plot was $\frac{1}{2}$ acre in area and one-half of each plot was crossed dressed with ground burnt limestone (97% CaO), at the rate of one ton per acre (shaded area on sketch plan).

All plots received a basal dressing of :—

2½ cwt. Sulphate of Ammonia per acre.
2 „ Potash Salts (30%) „

The phosphatic manures applied were as follows :—

Plot I.	10 cwt.	Basic Slag (24%)	per acre.	
Plot II.	4 "	Superphosphate (30%)	"	(i.e. a normal dressing.)
Plot III.	8 "	Superphosphate (30%)	"	(i.e. phosphatic dressing equivalent to Plot I.
Plot IV.	Nil.	(i.e. No phosphatic fertiliser).		

At each centre the manures were sown at the beginning of April, 1931, and were lightly worked into the soil before the seed was drilled. The cross dressing of lime had been applied about a week previously.

A good seed bed was obtained at each centre, and the drilling of the seed carried out at the end of April, the distance between the rows being 18 inches. A full plant was obtained and the beet were singled to 8-9 inches between the plants. The usual inter-cultural operations were done at both centres.

The plots were visited periodically throughout the growing season and in view of the somewhat remarkable results obtained, the field observations made on the 10th July are summarised below :—

On the slag and slag plus lime plots there was a full crop of large, healthy beet, and there was very little to choose between the two plots. The second best plot was that receiving 8 cwt. superphosphate plus lime. On this plot there were some good beet, but many gaps were visible. The plot receiving lime and the light dressing of superphosphate was poor and contained very many small beet.

The unlimed plots receiving superphosphate were almost complete failures, except perhaps in the case of the heavily dressed plot at Shrawley.

The unlimed plot receiving no phosphate was a complete failure and although an appreciable number of plants was present, these were still in the seedling stage.

There were some better beet on the lime alone plot, but they were small and thinly distributed.

The line of separation of the unlimed and limed plots was clearly defined, there being a definite response to lime, with the exception of the slagged plots.

As already noted, no difference between the limed and unlimed slag plots could be observed.

Figures A (Pencoyd) and B (Shrawley) taken on July 21st, 1931, illustrate the type of result obtained. The need for lime on these soils is clearly illustrated in Figures C and D. Figure C shows the effect of a heavy dressing of superphosphate with and without lime, and Figure D illustrates the type of result obtained from the application of a light dressing of superphosphate with and without lime.

The beet were lifted on the 22nd October at Shrawley, and on the 26th October at Pencoyd.

Field weights were recorded and a representative sample from each plot brought back to the laboratory for sugar and dirt tare determinations. The method of sampling adopted was similar to that previously used in connection with the Sugar Beet Demonstrations, organised by the Ministry of Agriculture.

The field and laboratory data obtained are shown in Tables II and III.

TABLE II.—PENCYD, HEREFORDSHIRE.
Yield Data from the Trial Plots.

Plot.	Number of Beet per acre.	Washed Beet Tons per acre.	Tops. Tons per acre	Sucrose. Percentage in roots.	Sucrose. Tons per acre.
*Slag (alone)	33,880	16.07	24.0	17.9	2.88
4 cwt. Superphosphate	29,524	4.44	7.3	16.4	0.83
8 cwt. " ..	27,588	4.14	5.9	16.7	0.69
No Phosphate ..	26,136	3.24	5.1	17.4	0.56
Slag and Lime ..	38,720	14.00	18.0	18.1	2.53
4 cwt. Supers & Lime	27,588	8.20	10.3	17.1	1.40
8 cwt. " " ..	36,300	8.25	15.0	17.4	1.64
Lime (alone)	32,912	6.10	6.8	17.7	1.08

TABLE III.—SHRAWLEY, WORCESTERSHIRE.
Yield Data from the Trial Plots.

Plot.	Number of Beet per acre.	Washed Beet Tons per acre.	Tops. Tons per acre	Sucrose. Percentage in roots.	Sucrose. Tons per acre.
*Slag (alone)	45,012	12.20	15.0	18.0	2.20
4 cwt. Superphosphate	20,812	4.14	7.5	16.3	0.67
8 cwt. " ..	34,364	8.85	12.4	16.8	1.49
No Phosphate ..	25,168	2.88	5.0	16.8	0.48
Slag and Lime ..	44,560	11.89	14.6	17.6	2.09
4 cwt. Supers & Lime	39,201	9.00	12.2	17.6	1.58
8 cwt. " " ..	41,624	10.71	13.1	17.5	1.87
Lime (alone)	32,428	7.71	9.4	17.5	1.35

*All plots received the Basal Dressing of Nitrogen and Potash.



FIG. A. PENCYD PLOTS.
 Foreground Basal Dressing only. Background Basal plus Slag Dressing.



FIG. B. SHRAWLEY PLOTS.
 Foreground Basal Dressing only. Background Basal plus Slag Dressing.



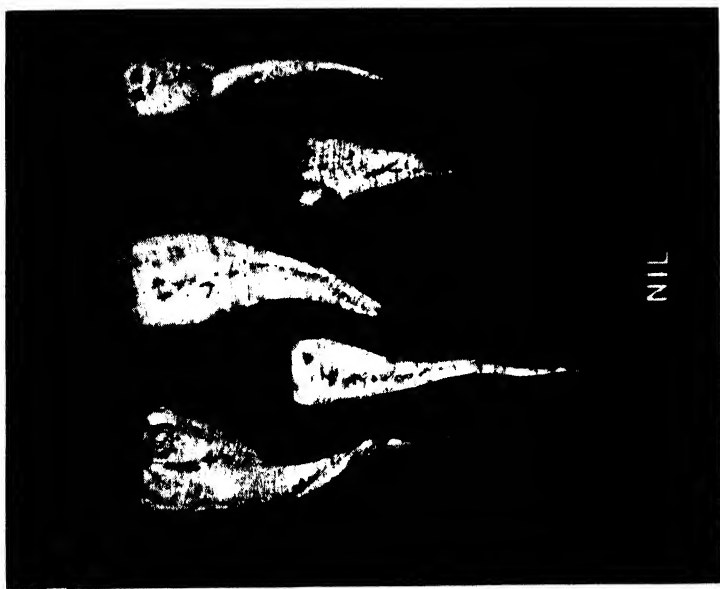
FIG. C. PENCYD PLOTS.

Foreground Control plus Heavy Dressing of Superphosphate.
Background Control plus Heavy Dressing of Superphosphate with Lime.



FIG. D. PENCYD PLOTS.

Foreground Control plus Light Dressing of Superphosphate.
Background Control plus Light Dressing of Superphosphate with Lime.



PHOTOGRAPH E.



PHOTOGRAPH F.

OBSERVATIONS ON THE RESULTS.

Number of Beet per Acre.

When beet are drilled at 18 inches between the rows and singled to 9 inches between the plants, there should be 38,720 plants per acre assuming a full plant. It will be seen therefore that at both the trial centres the actual number of beet per acre was well up to average. The low yield of washed beet on some of the plots is explained by the fact that many of the beet never grew to be more than 4 inches long. Also in some cases the beet were so slow in germinating that extra ones grew after singling had been carried out.

Yield of Washed Beet.

At both centres significant results have been obtained by the use of slag, and of slag plus lime. The yield of about three tons of washed beet on the unlimed plots receiving no phosphate being increased to 16 tons per acre at Pencoyd and to 12 tons per acre at Shrawley.

Comparison of the limed and unlimed plots shows that the dressing of lime has generally doubled the crop yield, with the exception of the slagged plots. In the latter case, it would appear that the addition of lime (to the slag dressing) has depressed the yield slightly. On these acid soils comparatively poor results have been obtained from the use of superphosphate alone.

Figures E and F are of representative beet taken from the plots at Pencoyd, November 1931.

Sugar Content.

That the slag and lime dressings promoted healthier crop growth is emphasised by the higher sugar contents of roots from plots so treated. The sugar content of roots from slagged and all the lime plots is good, whilst it is considerably lower for beet from the unlimed, superphosphate and no phosphate plots. Roots from these last named plots were very fibrous, whilst those from the slagged plots especially, were succulent.

Yield of Tops.

The yield of tops closely follows the yield of washed beet. With the highest yield of roots is recorded the greatest weight of tops.

CONCLUSIONS.

Despite the somewhat unfavourable climatic conditions obtaining during the spring and summer of 1931, excellent results were obtained from the use of 10 cwts. per acre of 24% basic slag (80% citric solubility), for the sugar beet crop on two light acid soils in Herefordshire and Worcestershire. In addition to the slag, the fields received a basal dressing of $2\frac{1}{2}$ cwts. per acre of Sulphate of Ammonia and 2 cwts. per acre 30% Potash Manure Salts.

The yields obtained from the slag treatment were considerably greater than those given by the equivalent amount of superphosphate (8 cwts. per acre), and superphosphate together with lime (1 ton per acre).

No additional benefit was obtained in the beet crop by the use of lime in conjunction with slag, although lime produced a marked effect when used with superphosphate.

As the sugar beet crop forms part of the general farming rotation, it will be necessary to study the effect of the experiment on succeeding crops in the rotation, but so far as the beet crop is concerned basic slag together with basal dressing of potash and nitrogen produced the best results.

The writers wish to place on record their indebtedness to the farmers and others who so kindly co-operated in these trials, and also to the Agricultural Organisers of the counties concerned.

24th November, 1931.

VI.—THE PONY CLUB.

By Major H. Faudel Phillips.

The Pony Club was started November 1st, 1929, and people often ask how it originated. Well, one shoot sprouted during the Easter holidays of that year. Some ladies in Surrey decided to have a mounted Children's party and someone to talk to the children. They did not know whom to ask, and an old friend of mine who used to ride for John Henry Stokes, and afterwards came farming in that part of the world, said he knew the right man if he could be induced to come. So in due course I was written to and went.

I found 58 children gathered together. We had a talk. I have a photograph of them now hanging in my smokeroom. I was amazed at their keenness and thirst for knowledge, and after the party was over and I had started on my homeward journey, I thought to myself, "Here is the way hunting can be saved and the coming generation brought on." I couldn't get going by myself, and puzzled for sometime how to organize the movement.

About that time I was roped into the Institute of the Horse, and one night in the Bath Club I was talking to General Marchant, the Secretary of the Institute of the Horse, about what the Institute could do to give themselves a firmer footing in the world, and out he came with my pet theory, that the children of to-day had not the opportunity to learn. Shoot number two, and the main shoot that was. I don't know what it cost us in fines for sitting up too late, but I know that by 3 a.m. the next morning we had a good rough idea of what we wanted to put before the Council of the Institute of the Horse.

So after a meeting it was decided to call it The Pony Club, and try and get a branch started in each hunting country. It was thought that that was the easiest way to divide up the British Isles.

A Central Committee was formed, and I have the honour of having been the first Chairman of the Pony Club. Our organisation was, and is now, most simple. We are the junior branch of the Institute of the Horse, and when a branch is started in a hunting country, the name of someone is sent in as proposed District Commissioner. The District Commissioner is then appointed and a committee selected. Quite small, and if possible, composed of people living in different corners of the country. Members are then enrolled, and it is marvellous how quickly they turn up, and in most branches what a lot of farmers' children join.

I can see some fiery whiskered old gentleman glancing at this article—or perhaps I am flattering myself, and should say, seeing the heading—and blowing his cheeks out and saying "damme, the children are pampered—spoilt—coddled—what the blankety blank do you want a Pony Club for?" "Well Sir," if you will stand, or, if a Cavalry man, sit at ease for a few minutes, I'll very soon tell you what we want a Pony Club for.

We want the Pony Club to afford opportunity for children to learn to be sports women and sports men. Our objects are to maintain the standard of British horsemanship—keep hunting

going. Strengthen the good fellowship between landowners and farmers and others. You must remember that in former days many children were taught riding by the family coachman or groom, or second horseman. To-day the coachman is extinct, and the grooms few and far between. People who kept horses then keep a car now, and if the child has a pony there is no one to ride with it. No carriage-horse to carry anyone. The child of to-day has not the same chance of learning horse sense, and horse and stable management. Therefore, the Pony Club.

There are to-day about 60 branches of the Pony Club—not all in the British Isles—One being at Gibraltar, and others I understand in process of being formed in India. The 60 branches already formed comprise some 4,500 odd members.

The method of procedure is that the District Commissioner works out a programme for the holidays, which includes Rallies in different parts of the country. Visits to kennels by the kind permission of the Master of Hounds. Talks by various people on subjects connected with the horse ; paper chases, riding parties, etc. At the Rallies, children are divided into groups and given a little riding instruction, then mounted games, and there is generally a short talk.

Another thing that the Pony Club has started is an annual test day, when children are examined, having previously been given a schedule to work up. We have visiting commissioners who visit different branches to help the District Commissioner, and to carry fresh ideas from branch to branch. A course of lectures has now been started for District Commissioners and Instructors for groups of branches, so that we may get the same basis of teaching all through the Pony Club.

Many branches have children's hunter trials, and some hunts run a junior class at their hunter trials. Many shows have very kindly admitted members of the Pony Club free, on their membership badge. The National Pony Society are this year giving a special class for members of the Pony Club. I could quote many instances of letters received from Masters of Hounds, saying what a great deal of good the Pony Club has done in their country. Not only in teaching the children how to behave out hunting, but in getting non-hunting farmers to take an interest in hunting, and in getting the wire taken down. I know of several cases where non-hunting farmers have bought their child a pony in order that he or she might join the Pony Club, with the result that a Rally has probably been held on that farm ; and I know of two instances

where the next season the hunt has met at farms where before they were barred.

The distance that a child will ride is extraordinary. I know one lad who rode 17 miles to a Rally and 17 miles home that night. Another little fellow had given up riding, and was nervous because his pony ran away. He came to a Rally dismounted, where he heard a talk on saddling and bridling. He went home and started riding again, and got the District Commissioner to help him with his pony, and I heard from the District Commissioner that last holidays he won the test for the junior children on test day.

Our map at headquarters (27, Cavendish Square), alone shows the progress that the club is making; for wherever one is started others spring up around it. There is not the slightest doubt that the Pony Club can, and will, keep hunting flourishing, and the standard of British Horsemanship in the front rank, where it always has been.

VII. - BRITISH HARDWOODS.

By A. D. C. Le Sueur, F.S.I.

It is a well-known fact that the planting of hardwoods in this country has practically ceased, and it will not be very long before the British woodlands will be unable to supply even the 25% of the annual amount required by the country that they do to-day.

As the chief constructive and utilitarian timber of the country home-grown hardwoods no longer lead, nor is there any chance of a return to their former position; but for what may be described as semi-luxury uses, and for a very large number of utilitarian uses, the demand in many cases is still very good, nor does it appear that this demand will ever cease to exist. The question therefore arises whether this cessation of planting is really sound policy or whether a re-consideration of all relevant facts is not a present necessity.

It has been suggested that empire hardwoods will fill any deficiency in home-grown timber supplies, but the price of these must rise as cutting gets further away from rivers, or other means of transport. Moreover many of the areas from which these timbers are extracted are only sparsely stocked, and the wood itself is not always floatable, a fact which naturally means a higher extraction cost and selling price.

Another point, and one consistently overlooked by economists, is that the British estate is a unit peculiar to the country, containing as a rule comparatively small blocks of timber, laid out from a sporting point of view, rather than from that of timber production. Sporting value is largely mixed up with timber production in this country, and the type of forestry must of necessity be somewhat different from that practised where the estate is used for the production of timber, and of timber alone. It seems hardly logical, therefore, to apply the same methods of calculating profits to businesses managed on different lines.

On the greater number of English estates sport and sporting rents will remain a valuable asset as long as game laws last, and whilst practically every hardwood except beech forms satisfactory covert, conifers do not, except larch in its younger stages, and therefore the practice of planting evergreens all over a sporting estate, originally largely broad leaved, is leading to trouble. There are instances nowadays where owners are actually cutting away young conifers in order to be able to shoot at all. In one case, at any rate, this has been done at a definite profit. To quote this case :—

A landowner wished to increase his shooting rents by 1/- per acre, and the increase was agreed to by the lessee, provided that threequarters of an acre in every 15 acres of extensive young Scots pine blocks could be cut away to make flushing points. Working on the basis that this additional rent could be kept up for 20 years only, the result of destroying this area as regards timber production will be a profit of £100 per block after allowing for the loss of £180 on the crop destroyed.

A very large number of English estates have an area of woodland which even when managed on systematic lines would give an annual cut of a few acres only, and it is on such estates especially that the cultivation of hardwoods, where the soil is suitable, should prove worthy of consideration.

British woodland managers are apt to discuss their failures rather than their successes, and if the truth were known a surprising number of cases would be brought to light where really keen management has resulted in very satisfactory profits off very ordinary hardwood areas.

Whilst coniferous thinnings are as a rule more saleable than hardwood, the market for the former taken as a whole is not likely to expand and will be very liable to flooding. With large quantities of coniferous timber available from foreign, and government sources

the merchant is not going to be too keen to handle small propositions, especially at cut prices.

Good hardwood land will naturally grow good conifer crops, but the point for consideration is whether it is sound policy to substitute for a slower growing crop that should be easy to sell, a quicker growing one that may be more difficult to realize. On a well-known estate in the West of England coppice sales have gone up tremendously, and the area is making excellent profits entirely owing to the fact that surrounding owners have scrapped their coppices and turned them into coniferous highwood. The demand is now far greater than the supply. A similar situation can arise with saw timber.

There are other arguments in favour of hardwoods :—

- (1) Foreign competition is not so great, and government competition is, and will be apparently, practically *nil*.
- (2) The market is as a whole far better than that for native conifers, and is less restricted.
- (3) Quality of timber is as a rule superior to that of foreign timber.
- (4) Prices being relatively high, timber can stand long railway hauls without having all profit wiped out.
- (5) For certain species the argument of non-saleability of thinnings does not apply.
- (6) Uses are very varied.
- (7) Crops are more easily managed.
- (8) Crops are freer from disease and insect pests.
- (9) They can grow equally well on half an acre as on 50 acres, which is not always the case with conifers.
- (10) They make good game coverts at all times.
- (11) They are saleable in small lots as well as large ones.
- (12) Their amenity value is far greater than that of conifers.

Another point that the estate owner will do well to consider is the probable future market for the conifers now being planted to the practical exclusion of hardwoods. This planting is based on the fact that long rotations are expensive, and that by planting conifers a relatively quick return can be obtained. This is perfectly correct from the theoretical point of view, but it is not so certain that in the majority of cases an economic return will result. In the first place the majority of conifers now being planted are

in the experimental stage only. We know for instance that Corsican pine is a quicker cropper than Scots pine, that Sitka spruce compares with Norway in the same way, that Japanese larch in its earlier stages grows faster than the common variety. We are, however, beginning to learn things about these new trees, for instance that when Japanese larch gets into the pole stage the leaders are apt to twist, and that older trees are not free from heart rot or canker; that planted under commercial conditions the natural cleaning of Douglas is negligible; that Douglas is most unsatisfactory when exposed to the fumes of industrial districts. As regards the general silviculture of these trees much has yet to be learnt, and as regards their marketing in bulk, practically everything.

When selling conifers the landowner is to be "up against" very severe competition both from home and abroad. At the present time the home market is overstocked with coniferous timber, and it will not be very long before the Forestry Commission fellings come into the market. These fellings will be off large areas, marketed in enormous quantities with overhead charges cut to a minimum. If the plantings are estimated as being 50% Pine, 20% Spruce and 15% each of Larch and Douglas Fir, about 20,000 acres being planted each year, the output per annum in, say, 25 years time, based on Quality III yield tables, will be about 2½ million cubic feet for the last three species alone, probably over 3 million feet in all and increasing every year. The growing of this timber at the country's expense is based on two facts:—

- (a) the need for a timber supply in case of national emergency;
- (b) a predicted world shortage of softwood timber.

As regards national emergency, the argument as things stand to-day does not appear to hold water. The only emergency one can think of is war. Timber, it is true, is very necessary for trench warfare, but with the development of the tank and the aeroplane the abolition of stationary warfare would appear to be a definite fact. With relation to a shortage of timber the following opinions are of particular interest:—

* "Forestry authorities all over the world regard the world supplies of softwood with anxiety. We have not found this feeling of apprehension shared generally by the members of the trade in the United Kingdom. Adequate supplies have always been readily available in the past, and it is possible that the trade has

* Imperial Economic Committee. Timber 1928.*

been lulled into a feeling of security for the future which the world position would not warrant. The commercial view is that a scarcity of supplies will adjust itself by an increase of prices which will bring within all economic radius fresh forest areas hitherto untouched."

Again :—† "Consumption in Britain is not likely to increase very materially and may even decrease—— Left to herself, the European supplies of softwood may be expected to equal the demand at a price somewhat higher than that ruling at present."

Presuming, therefore, that a shortage will be adjusted by a rise in price the policy of possessing mature stocks appears to be a sound one *providing always that the timber possessed is of equal quality to that on offer from abroad*. As regards conifers, however, there is one very important factor to be taken into consideration, namely thinnings and early fellings. There is only one big market for these and that is for pit props. If this is not available the loss on this timber will go far to wipe out any profit that can be obtained on saw timber.

The objections to British pitwood are too well known to be repeated, but presuming the quality improves there is still the question of cost to be considered and also of supply. The collection of timber off comparatively small areas will always be expensive, a factor which will not, however, bother the Forestry Commission, whose areas in certain cases are relatively very large compared to those of private estates. But it is doubtful whether a rise in the price of foreign pit timber would make much difference to the British producer. The working out of the cost of timber per ton of coal raised is difficult as the weight of timber varies, and it may be bought by the dead weight or by the lineal cubic foot. On a basis of $1\frac{1}{2}$ tons of pitwood per 100 tons of coal raised the cost of timber per ton of coal raised is about 7d. Presuming that the price of foreign pitwood went up 100%, which it is not likely to do, this would only mean an increase of 7d. per ton or less than a halfpenny per cwt. to the consumer, and would certainly not deter the collieries from buying timber from abroad if they found it more convenient.

The rapidly increasing utilization of steel is also a thing that cannot be ignored. The estate owner must therefore realise that he is going to put retail quantities into the market against two powerful opponents working on wholesale lines. He must also

† Hiley. Q.J. Forestry 1929.

realise that the statement beloved of certain upholders of British forestry that —“Supply creates demand”—is not necessarily sound reasoning.

Forest economists state that there is little or no profit in growing hardwoods, especially oak and beech. As prices stand, and working as they do on purely economic lines (i.e. the land for the trees, and not the trees for the land), the contention appears perfectly correct as far as figures go. The flaw in the calculation is, however, a definite difference in the respective planting and establishment costs of estate woodlands and those of State forests on which these calculations are based. This matter is fully dealt with when considering the planting of oak.

Much, however, appears to depend on marketing, in which science foreign traders are far ahead of this country. Their timber is no better, and in fact sometimes worse than the home-grown article, but by co-operation and clever selling methods, foreign timber has got in, and as prices stand at present will be difficult to get out. In the past, British hardwood was easy to sell and competition was not great, but nowadays, when it is difficult to sell, there is a tendency to “throw up the sponge” and give in. The trouble is that timber is an estate sideline, managed usually by a man with many other things to do and who has little or no opportunity for acquiring market knowledge. His interests are largely local, with the result that his market remains local, and even if he wants help he cannot get it. There is at present nobody in England to help estates market their oak, nobody to persuade the country as a whole to buy British timber in the same way as one “eats more fish” or “drinks more milk.”

Oak.

The day of oak as *the* tree of the country has definitely gone. Nevertheless there is still some demand for it, a demand which in spite of the increasing use of steel shows no lessening. In 1930 the London market took over $6\frac{1}{2}$ million cubic feet of imported oak, of which over 5 million cubic feet came from the United States. Nowadays the trade as a whole seems concerned less with high quality than with cost, with the result that there is now much timber of a type inferior to our own in the country. One market for English oak in particular has been badly hit by America, namely the waggon sole bar trade, which has to compete with sawn sets coming in at a price which leaves little or no profit to the home-grown merchant.

British hardwoods are frequently decried by the trade, and generally dismissed as a hopeless proposition by the compound interest theorists, but nevertheless the trade will attend a sale of good oak and buy it at a high price even in the midst of a really bad industrial slump. The compound interest theory of the "timber manufacturer" which is what a state forester is in reality, ignores, as has already been stated, definite factors of value with which he never has to deal. The amenity given by fine hardwoods to a mansion has a definite economic value, which is sometimes even more than the value of the timber itself. This value at 5% for, say 50 years, would go far towards wiping out the advantage held by quick growing conifers, whose amenity value is considerably less. The definite loss on sporting value frequently incurred by coniferous plantations over a period of say 40 years, is never deducted on a 5% compound interest basis. Again the sporting value of pheasant carrying estates is spread over the whole estate whether woodland, plough or meadow. At least two-thirds of the total should be credited to the woodlands, provided of course that the proportions are reasonable, and hardwood areas should also receive a greater proportion than conifers. Doubtless all this may be considered going to extremes, but if meticulous costing is being done for the purposes of comparison every point should be taken into consideration.

British oak needs more advertising and more careful handling, both in marketing and in conversion. Co-operation could do much, but landowners are conservative and little has been done in this way. Co-operation in selling has in the past been looked at askance, there being an idea that the sales of one estate may be detrimental to the sales of another. This is not generally the case, and where sales are small the co-operation of several estates may produce a collection of timber, that handled by a good firm of timber surveyors will bring buyers from all over the country.

Home conversion, if it can be done, will often get rid of mediocre oak far more quickly than selling it to the trade in the log and much more can be made of it. For instance, a clean oak butt of, say, 50 cubic feet, is sold standing for $2/3$ per foot, or say, £5. This log, if converted, has about 50 cubic feet actually available. One might obtain with care at least 20 cube feet worth 7/- per foot, and another 20 cube feet suitable for estate work at 4/-, or £12, allowing £1 for the rest of the tree. With maximum conversion charges at $1/2$ per foot converted, the actual price per foot standing averages $3/6$. Again, fencepost oak is frequently sold at 1/- or $1/3$ per foot. Taking $1/2$ as an average the price of a 20-foot cube tree is $22/4$. Converted

on the spot, felling, transport and sawmill charges should not as a rule exceed 1/-. Allowing 25% for waste and charging only 3/- for the converted material, the actual price obtained for the tree is £2.17, equivalent, after conversion charges are deducted, to 2/4 per foot. It is well to note that when breaking down a big log 3-inch plank is more economical than 4-inch, although the latter means less sawing. This is due to the thicker plank losing more timber from the edges when squaring up. Home conversion, however, must not be considered a universal solution to the problem of how to improve selling price, as it is not always possible to get a steady and regular market for estate timber. But there is one definite advantage apart from all others. As a general rule, especially where home conversion is not practised, it is difficult to sell inferior timber, and the usual method adopted is to mix it in with the better class material. This lowers the price of the good trees. If an owner is in a position to convert his inferior timber, he can market his best trees in parcels unadulterated by small butts and so get a better price per foot. Very big trees are best sold in the log unless the plant is large and the sawyer or clerk of the works a really experienced man. In such a case profits are good, as long wide planks can easily be sold as a rule at 10/- or 12/6 per cube, and the remainder used for estate purposes. Another point to remember is that inferior timber well converted will often sell better than a better class timber that has not been so carefully handled.

At the present time the annual consumption of home-grown oak amounts to about 12 million cubic feet for all classes of timber. For sawmill timber the annual increment is considered to be about 20 cubic feet per annum and the annual cut over 26 feet. If prop material, fire wood and other inferior timber is taken into consideration the increment will obviously be less. Calculating on an average output of 1,800 cubic feet per acre at 120 years (in itself high), on a similar demand as at present (12.5 million feet per annum), and in addition taking $\frac{1}{4}$ of the mixed woods as being oak, the following highly approximate table can be got out, having as its basis the Census of Woodland made in 1924 :—

<i>Age Class.</i>	<i>Period of Production.</i>	<i>Acreage Available.</i>	<i>Production. M. c.f.*</i>	<i>Demand. M. c.f.</i>	<i>Deficit. M. c.f.</i>
81-120	40 years	158,000	284	500	216
61-80	20 "	102,000	183	250	67
41-60	20 "	51,000	91	250	159
20-41	20 "	42,000	75	250	175
0-20	20 "	17,000	30	250	220
		†370,000	663	1,500	837

* Millions of cubic feet. † $\frac{3}{4}$ total hardwood acreage taken as being Oak.

If the oak in coppice with standards is added as well on a basis of $\frac{2}{3}$ of the area carrying oak standards giving about 400 cubic feet per acre at 120 years, an annual fall of 3,000 acres will produce about 120 million feet in the period, reducing the deficit to about 717 million cubic feet, *and this in only one rotation.* As regards the age class 61—80 it is more than possible that owing to the lack of reliable estate planting records the ages are estimates and therefore a good proportion of this class is comparatively small mature timber which should really be in the 81—120 class. The removal of this timber to the older class would certainly not increase the quantity to the same extent, as it would lessen the estimated future quantities of the younger classes. The whole calculation above is merely an estimate and is doubtless inaccurate, but it is possibly close enough to show what the state of home-grown oak woodlands will be in the not very distant future. The annual production per acre is probably too high and the acreage too great as there are hundreds of acres of so-called oak woodland which will never be worth felling, so that production will fall short of the estimate above.

There is no reason to anticipate that foreign oak will be as plentiful as it is now, rather the contrary in fact, and as a semi-luxury timber oak should command a far higher price than it does to-day. Even in this year of acute depression over 300,000 feet of oak were sold off 10 estates alone in various parts of England.

On one estate in Northants 40,000 cubic feet were sold, the trees averaging nearly 90 cubic feet apiece under bark, with 48 trees averaging 180 cube feet selling at 3 6 per foot and over. On another estate in the same district 118,850 cubic feet were sold, including nearly 50,000 cubic feet of timber averaging 70 feet per tree. In Worcestershire 51 trees were sold as containing 5,600 feet. In Shropshire 258 trees were sold off one estate averaging over 100 cubic feet apiece. It is not pessimistic to anticipate a definite shortage of good oak in the near future. To those thinking of planting oak, the following figures based on calculations made by Mr. L. S. Wood should be of interest :—

Cost of establishment per acre	£14 0 0
Deduct planting grant (presuming it is available)	4 0 0
	£10 0 0

If the plantation is placed under Schedule D a repayment of at least 10/- in Income Tax and Super Tax can be anticipated. If Death Duties are being paid on the estate at, say 25%, replacement of timber could also be claimed :—

Tax and Super Tax at 10/- on £10	£5 0 0
Rebate for Death Duties at 25% on £10	2 10 0
	£7 10 0
Actual cost of Planting and Establishment	£2 10 0

On a 100-year rotation the accumulated debt at 4% on the above would amount to £126. On a state plantation the accumulated debt at the same rate of interest would be over £600. Naturally this also applies to conifer planting. In the case above it is used :—

- (1) to give strength to the hypothesis that estate forestry financial calculations should be made on a different basis to those used in state work ;
- (2) on a presumption that in the future oak prices will rise more rapidly than those for conifers ;
- (3) to encourage owners, who, whilst considering that hardwoods are better for the estate than softwoods, are hesitating to plant them owing to the cost of initial establishment.

The actual raising of an oak crop presents several problems, most of which have not as yet been definitely solved. As regards soil the question is settled, as everyone knows that as a general rule clay and clay loams are preferred and the better the soil the better the tree. If the area is large then the question arises as to whether conifers are a better proposition, but if it is only a few acres oak appears worth considering, especially if it is some distance from a consuming centre. The method of establishment may be by artificial planting or by the sowing of seed. More attention is being given to the latter nowadays owing to its comparative cheapness. The trouble with this latter method is the weed growth which on most areas develops so rapidly and makes the seedlings difficult to find and expensive to clean. Also there is frost damage to which this species seems very susceptible. Sowing, if it can be managed, appears to be the best way to raise the species, as oak with its long taproot is not a good transplanter. It is possible to see planted oak growing side by side with sown oak, and the advantage is invariably with the latter. Deep sowing is nowadays recommended at a depth of at least 4 inches for fear of loss by game. This is borne out by the experience of the writer. Patches sown with acorns at a depth of 2 inches were completely cleaned by pheasants, sown at 4 inches deep the loss was practically *nil*. As regards mixtures it is a well-known fact that oak and beech is ideal, provided that the oak is not suppressed by the beech.

This points to the necessity for underplanting, a method which theoretically correct, is from an economic point of view practically impossible in estate woodlands. Oak and ~~larch~~ ^{hedge} is a bad mixture

of two light demanders, but the solution appears to be one of planting or sowing in groups in a matrix chiefly composed of larch. The Forestry Commission are experimenting with larch as a matrix in the Dean. Squares 36 feet in area are placed 10 feet apart and planted with 1-year oak seedlings 10 inches apart. When sown $2\frac{1}{2}$ lbs. of acorns are used per square. The rest of the area is filled with larch. The object of this is to force the oak up with clean stems, cheapen the cost of weeding and (170 stems being too thick for a final crop) to allow for selection and loss.*

Beech is difficult to manage with oak, but if planted in small patches and simply regarded as a soil improver there should be no difficulty. Soil of course has a distinct bearing on ultimate success, but silvicultural management is perhaps even a greater factor in success. Excellent oak and ash has been raised in definite beech districts such as the Chilterns and Cotswolds, where the soil is often merely gravel and chalk. It is practically certain that if the matrix had not been beech these more valuable species would never have reached the stage of excellence that they did and still do. The beech need not be numerous, and to those people who condemn this addition as an uneconomic practice it is pointed out that if one wishes to raise trees that may be worth between two and three shillings per foot, the cost of these beech will not be a very serious matter.

Frost is, as already stated, a definite drawback in oak planting on bare areas, and old coppice woods appear to be better suited for the purpose. Oak can be planted fairly economically in these by cleaning 6-foot strips, thus having the trees 12 feet apart by row and 4 foot by line. Young trees are not so liable to damage by frost or mildew and should be side pruned by the old coppice up to 20 feet. Pruning appears necessary but can be confined to the better trees. Root pruning is sometimes unavoidable, but should be done as little as possible. Where the soil is deep and fairly easy to work transplants should be pitted with a notch in the bottom of the hole to prevent the bending up of long vertical roots.

Really good pure oak woods do not appear to exist in this country, and the best oak is almost invariably found over coppice or when scattered amongst other species. In the light of past experience, therefore, attempts to raise pure woods as grown on the continent are not likely to prove very profitable. This is borne out by a

* Gillebaud. British Association, Bristol, 1930.

search through a large number of oak sales, both recent and in the past, in which high figures per acre are very rare indeed, whilst high figures for individual groups of trees are comparatively common.

On aftercare there is nothing to say that is not already well known, but there is one important point that is apt to be overlooked, and that is that it is very easy to force oak up to a height at which diameter increment becomes difficult and slow. The encouragement of such increment should not be delayed once the tree reaches a height of thirty to thirty-five feet.

Beech.

As an economic proposition the planting of beech certainly does not recommend itself nowadays, except in favoured areas close to a consuming centre, although it is, on the soils which suit it, not such a slow grower as is generally imagined. There is, however, one important point to be considered, and that is the thousands of acres in the country, now under beech growing in a soil which is probably suited to nothing else except perhaps Corsican pine. Corsican pine is at present doing very well in this country on chalk formations, but the result of planting it on such soils remains to be seen. Beech, which has been the natural growth on chalk for time out of mind, is particularly suited to it owing to the heavy deposit of leaf soil which tends to neutralize the excess of lime, and renders other soil constituents more available as food. Evergreens have a small leaf fall producing a most indifferent leaf soil, and it appears more than possible that a conversion of beech wood growing on chalk to conifer wood will eventually mean soil deterioration leading to inferior growth on the part of the tree crop. It is quite impossible to imagine the Chilterns and the Cotswolds undergoing clear felling for the purpose of restocking them with Corsican pine, and it appears fairly certain that these areas and part of Southern England will continue to carry beech woods for very many years to come, and, if prices rise and transport costs go down, beech of good quality will be quite a fair investment. In any case few owners can afford to convert to conifers even if they wished, and as long as there is a reasonable market and a possibility of obtaining better prices by better management it appears unnecessary to do so.

The cultivation of beech is also not a simple matter, although it is less exacting as regards soil than oak and taken by the acre will produce considerably more timber. It is difficult to raise and in many places the price for timber is low, as, being comparatively cheaply priced species, transport costs are an important factor in the price.

At the present time beech prices vary very much. No tree is more dependent on the cost of transport and timber near a consuming centre therefore makes much higher prices than that in isolated districts. On one estate carrying extensive and very fine beech woods on the Cotswolds 1/6 and even 1/9 has been paid per cube foot quite recently, and in the Chilterns 1/4 can be obtained. The price at present is undoubtedly affected by the unprecedented sale of 2½ million feet of timber off the Goodwood estate in 1930. The price paid worked out at about 5d. per foot. Felling and haulage was estimated at 5d. per foot and rail carriage 10d., which shows that had these woods been near a convenient consuming centre the price would have been well over 1'2 per foot.

British beech suffers from foreign competition, and this chiefly from Central Europe, the price quoted from there being frequently less than it can be produced for by home-grown merchants. This continental beech is as a rule of inferior quality to the native timber and even when of equal quality its texture is frequently unsuited to certain trades. Clog making is an excellent example, as foreign beech is seldom used for this purpose, since it is less waterproof than British timber.

As has already been stated the areas in this country under beech are still large, as the soil on which it grows is as a rule unsuited to conifers except Corsican pine and occasionally larch. Much of the timber is small and therefore difficult to sell. This fault is generally one of silviculture rather than of the species itself, as the selection system under which beech has been managed for generations is worked on output instead of acreage, a very difficult method to manage correctly.

As managed in this country the tendency has been to cut out the most marketable trees, leaving the smaller ones to grow on. Frequently these smaller trees are comparatively old specimens, owing their small size to lack of vigour, rather than to youth, with the result that the woodlands have in many cases gradually become more or less even-aged blocks of smallish trees growing thickly, a fact which has prevented natural regeneration to any great extent. In other cases the woods have been overcut, seed years have been several years in coming, the soil of these areas, well open to light and sun, has become covered with weeds and grass and regeneration is again prevented. In the past the smaller trees found a market amongst the "bodgers" or travelling chairleg turners, but now this market has gone and the demand is practically entirely for first-class trees, long and clean with a quarter girth of not less than 15 inches.

An objection to the estate growing of beech that is sometimes advanced is that it makes bad game cover. This is certainly correct as regards old even-aged woods, as in these a pheasant can see for a great distance, and dislikes them also owing to lack of light and sun. This objection can be done away with by working in big patches instead of individual trees, for young beech makes excellent cover up to twelve years or so, as it retains its leaves through the winter. In properly managed selection woods the objection as regards game will not arise. Big patches of not less than 3 acres are recommended, as smaller areas will quickly become sour if used much by birds.

Natural regeneration, on which this system depends, is nowadays inclined to be very poor. Apart from the handicaps of too little or too much light old beech woods are frequently covered with leaf mould and raw humus to a depth which prevents the root of the young seedling from getting into mineral soil and after two or three years it dies away. In past times leaf mould was largely removed, and the grazing of pigs meant a considerable rooting up and turning over of the soil, very much to the advantage of young seedlings. It will often be found much easier to regenerate crops growing on a slope than on the flat owing to the fact that the depth of humus on the former areas is generally thinner.

Mismanagement has also been due to lack of knowledge of past history. In planted woods the usual practice is to cut away small trees and keep the best for the final crop. In natural woods the small trees are kept, and the larger and best removed. If an old wood that has originally been established artificially by planting, is mistakenly treated as a natural wood, trouble is bound to occur, as the small trees which are reserved as vigorous and young are probably weaklings which will never come to any good after the big trees are taken out. If a natural wood is treated as a planted wood, the small trees, cut out as inferior specimens, should have been left to make the crop of the future, so that in both cases the wood deteriorates.

With regard to the improvement of large blocks the only solution appears to be the adoption of the "uniform" system. This is a type of shelter wood system, depending largely on natural regeneration (although a certain amount of planting may be done), and is particularly suited to beech, which is very sensitive as regards extremes of temperature. It may be defined briefly as clear felling in stages in which the seedlings are gradually cleared of overhead cover, and left as a crop when they are about two feet in height

The period which must elapse before the over wood is completely removed will vary. On small areas it will be shorter than on very large ones. It also depends on the seed years which in this country occur about once in 10 years (actually in 1900, 1911, and 1921, to mention the last).

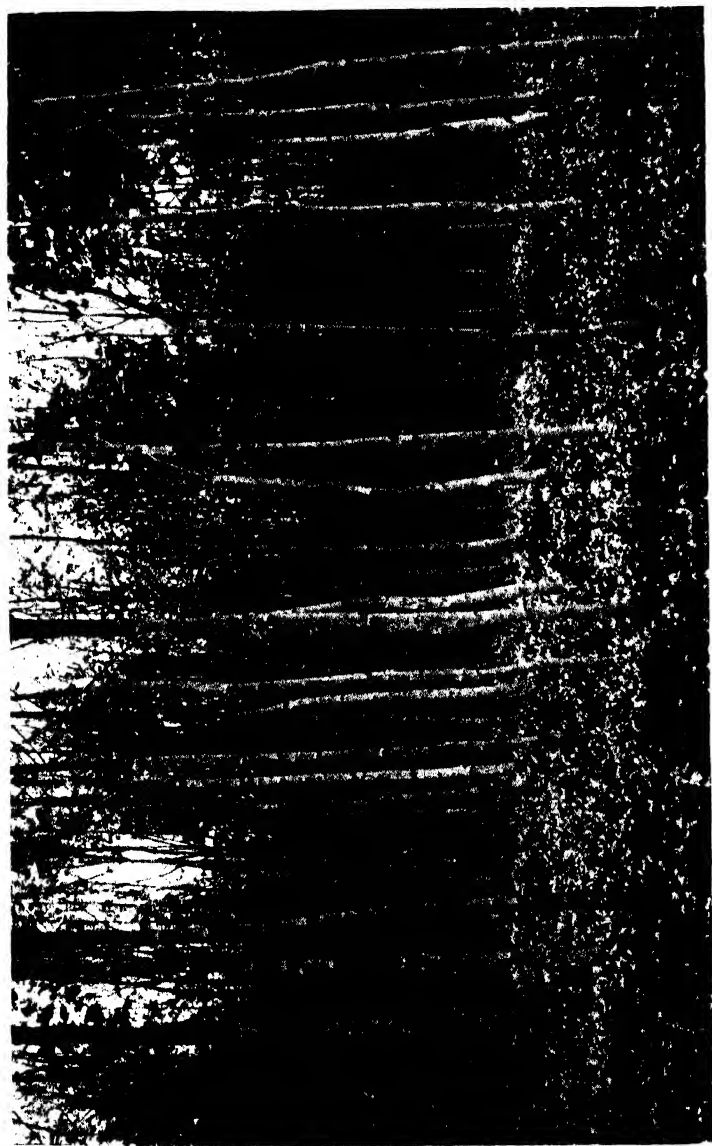
As regards artificial planting on open ground there is probably no hardwood which is more difficult to raise in this way than beech, chiefly owing to its susceptibility to frost. The inhabitants of the Chiltern hills consider that artificial plantations cannot be successfully made, and although this is not correct the number of failures in the past is extremely large. Most of these failures were probably due to an attempt to plant dry soil, especially on southern aspects. Experience shows that a mixture with a quicker growing tree is more satisfactory, and larch appears most suitable for this purpose, since it can come out as saleable thinnings. Strong grassland is the worst type of soil on which to try to raise a crop of beech, as the grass, especially when matted, attracts and holds frost to an extraordinary degree. Thin grass is not so bad, and on bracken land leaving a certain amount of thin bracken over the plants appears to act as a preventative of frost. In old cut-over woodland the best procedure appears to be to leave scrub as rough cover, and if necessary, and time permits, the area should be allowed to stand to allow further growth, providing always that future clearing is not too expensive. For the mixture to be used, 3 rows of beech to 1 of larch appears best, as in anything but thin soils over chalk there is a tendency for the larch to smother out the beech. If a wider mixture is required larch and beech separated by spanish chestnut appears to be sound. Since the beech growing slowly at first requires shade and the larch growing quickly requires and gives little shade, the chestnut is distinctly useful, its rate of growth being faster than beech and slower than larch. On chalk soils as a general rule beech of the same size will completely suppress it and will also outstrip sycamore, and in such cases group planting is definitely indicated.

On the whole it seems that the most satisfactory place to raise new beech wood is on old felled woodland on areas with some kind of rough growth already on it. If patches of beech woodland are to be filled up, the French practice of using large plants over 24 inches high should be followed, as these are not so liable to be cut off by frost.

Ash.

There is probably no home-grown timber which is in such demand

as ash of good quality, and there is no timber which is more difficult to find in quantity. Ash is a tree of sporadic growth, that is to say it is found usually alone or amongst other species, and as the Timber Disposals Board dealt with over 2 million cubic feet during the war it is not difficult to realize why the species is now so hard to find. Users of ash definitely prefer British timber to foreign and are prepared to pay high prices for good timber. The supply is, however, quite unequal to the demand, as is shown by the fact that in 1930 over 2½ million feet of foreign timber were delivered to London importers alone, an increase of nearly half a million feet over the preceding year. Much of this timber, however, is inferior to the home-grown material, and the price and demand for the latter shows no signs of lessening. Taking into consideration the comparatively quick growth, early maturity, and the small sizes which can be utilized by the merchant, there is no hardwood with a more promising future in the country to-day. The strength, elasticity and resiliency of the timber is unequalled by any other and although its use for aeroplane work now no longer exists, and in the motor trade much beech is being substituted for the framing of the cheaper cars, the sports trade demand increases every year. Tennis is no longer confined to the moneyed classes, and with new open spaces and recreation grounds opening every year the demand for racquets becomes greater and greater. Steel has been tried as a substitute but has definitely failed. It has the strength but not the "feeling." Beech racquets are on the market, but these again lack the resiliency of ash and the species has little to fear from it. As road transport increases so does the demand for ash for omnibus bodies. Ash is unequalled for the curved members of these bodies, as the timber when worked up does not shake or split. "Double decker" buses utilize nearly 100 cubic feet of ash. Big trees are at no time required, as the largest plank is never more than about 15 inches wide and 18 feet in length. The timber for this purpose need not be of "aeroplane" quality, a type now practically entirely utilized by the sports trade. This trade will take trees of 8 inches quarter girth and up, insists on the trees being young, and regards cleanness as being superior to length provided that there is no branch nearer the ground than 12 feet. The racquet "sticks" are 5 feet long and 1 inch in section, and are as a rule only taken from the outer portion of the tree. This latter fact is probably due very largely to the great difference in price between the timber in the log and the same when riven into "sticks." In the first case the price is possibly 5/- per cube foot, in the second round about 80/-.



Ash polewood, Dartington Hall Estate, Totnes. 14 years. Once thinned. Note growth of wild garlic below.

Photo: Dartington Hall Estates, Ltd.

Taken as a species ash will grow on most soils provided that they are not too dry or poor, but as a first-class timber-producing tree the results are frequently disappointing, and it may be taken as a fact that fine ash timber is not too easy to raise. As a general rule it will be found that, when the tree is planted over a wide area, growth will prove very unequal, in some places single trees outstripping their neighbours and in others small groups doing the same. Pure crops are rare and there appear to be few records extant of successful planting of this type. The species dislikes grass both from a soil robbing point of view, and also owing to the fact that grass attracts frost, this frequently resulting in the loss of the leader and consequent forking low down. Pure crops and crops formed with other light demanders such as larch, afford little protection to the individual tree. On lime soils it appears to do best mixed with beech, provided always that the relative rates of growth on such soils are taken into consideration. It will often be found that on definite beech soils, the beech will grow faster than the ash in the early stages, and although caught up later on, the ash is useless, as in its endeavours to get to the light above the poles are bent or otherwise distorted out of the normal, a defect which renders them quite useless for a high-class market.

The solution on such soils appears to be either to plant up with small beech and large ash plants, or to plant with equal sized plants and to cut down the ash to the collar when well established, this being in the second or third year after planting. The resulting crop of shoots can then be thinned out gradually to one stem. The clearing off of light scrub on such areas should not be done, as this tree likes a light overshade as much as beech, and in fact on open lands it appears to be almost necessary to have such overhead cover. On lime free areas chestnut and ash with a few beech appears to be the ideal mixture. The great thing appears to be to keep the tree growing, as its value largely depends on the number of rings to the inch and no tree gets over a check on growth more slowly. A quickly growing tree is always easy to recognise, as the bark is thin, the slightest scratch exposing the dark green rind lying immediately under the smooth and light coloured, sometimes almost cream coloured bark. Trees with a fissured bark or with a strong growth of lichen are signalling a slowing down in growth, and in young trees this is an indication that the area is not suited to the species as a whole. Ash can be raised in coppice areas provided the overhead canopy is not too heavy and the soil is not heavy or

cold. In such cases it appears to do better when planted in small groups which may be thinned out as required. The sides of small valleys and ravines, especially near water, are ideal for ash, and the smallest likely spots may be planted with a few trees. Half-a-dozen trees planted in such a spot producing one tree worth, say £4 in 40 years, with a few moments work on it per annum for the first half of its life, is an investment of somewhere about 11%. On some areas ash appears to regenerate itself fairly easily, and in such cases a pure crop of uneven aged trees can be grown, the younger trees which bear, and in fact prefer shade, keeping the ground clean and pruning off the larger trees. Reproduction must be strong, as once grass and weeds get the upper hand natural regeneration will fail. It is hardly necessary to add that rabbits must be rigorously excluded.

The soils best suited to ash are deep moist moderate clay loams of a type which do not "pack" on the surface. Low-lying sites invite frost damage and must be avoided. On sandy soils the timber is generally short and flinty in grain and consequently weak and hard to rive. On thin soils overlying chalk or oolite it will grow excellently at times in mixture with beech. Possibly the best ash in the country is grown on the Fullers Earth formation in the Cotswold Hills. The presence of wild garlic and Dogs Mercury are indications that a soil is well suited to the growth of ash. On the Dartington Hall estate in Devonshire is a crop of young ash grown on soil covered with wild garlic. The poles are of excellent quality and are growing fast, and the area was awarded the Silver Medal for young hardwoods in the R.A.S.E. Plantation Competition in 1930. A comparatively new discovery by continental foresters is the fact that there are two definite forms of the species, the "lime" ash growing on chalk or oolitic soils and the water ash which prefers a clayey situation. No research on this difference seems to have been done in this country, but it seems well worth considering, as there is a general tendency nowadays to purchase from a nurseryman on his own reputation rather than on the actual situation of his nursery. Moreover, if one requires a limestone grown ash it is as well to get a guarantee, as in certain cases it does not necessarily follow that an order sent for example to a nurseryman in the Midlands results in the supply of trees raised from seed found in that part of England.

The conversion of coppice shoots is occasionally advocated, but except on very good land with sound and healthy stools it is not likely to be very profitable. The poles are very liable to become

bark bound and the lower part is often discoloured if not actually rotten. As this is the most valuable part of the tree the inference is obvious. As regards price, reported sales at high prices should be accepted with caution, as they frequently refer only to butt lengths. To sell these alone raises the problem of disposal of the upper portions, and few merchants will buy them separately. A sale of the complete stem at 3/- is better as a rule than 10 or 12 feet at 5/-. Summarizing briefly the planting of ash is worth considering for the following reasons :—

- (1) The market is good.
- (2) It is saleable at all ages.
- (3) The rotation is, for hardwoods, a short one.
- (4) Being a tree that grows well as an individual quite small areas can be utilized for it.

But it must be remembered that :—

- (1) The timber must be very clean and fast grown.
- (2) It is a fastidious species and the soil must suit it exactly.
- (3) It is very frost tender.
- (4) On certain soils it goes “blackhearted” at an early age.
This defect appears to make its appearance more or less at the same age on the same soils, and the rotation should be based on this fact. On clays, for instance, it is quite possible to raise crops suited for the tool handle trade which accepts trees of 5 inches quarter girth and up.
- (5) No tree depends more on silvicultural treatment, and whilst the trees may, and should be forced up when young, the butt must be capable of putting on a fairly large crown in later years, otherwise girth increment will suffer. The tree resembles larch, inasmuch as a long pole with a wisp of branches at the top will never develop into timber.

Sycamore.

Sycamore is a species that is frequently overlooked, and it is a curious fact that A. C. Forbes* does not include it in his list of profitable trees. It is as a rule fairly easy to please as regards soil, is remarkably fast growing, frequently beating larch, and as large trees is almost as valuable as oak. Big trees are very scarce and rising in price. One of the chief objections to its cultivation is the question of small timber. Of recent years a demand for large

* “Estate Forestry” 1904.

poles, etc., has sprung up for toy making and small turnery, whilst in the North bobbin makers prefer it to most other species. From the sylvicultural point of view it is much to be recommended on areas exposed to wind, as it is extremely storm proof. It can be grown pure, but the stems will not be large, as in such case they run to length with a small crown. In isolated places the crown is large with a comparatively short thick bole. It grows well with beech, but on the oolite will be outgrown and suppressed very quickly. The roots are greedy, and the leaf fall, though heavy, does not make particularly good humus. It has been suggested as a good species to mix with spruce, but actual experience shows that the spruce is outgrown and killed right out unless planted in groups. In a plantation of the former type the sycamore felled contained 1,100 feet of timber per acre on a 50% planting with spruce at 45 years of age. Had it been pure, over 2,000 feet at 1:1 per foot for bobbin making, which was the price realized, would have given a financial result equal to if not better than that of other species of hardwood.

When artificially planted it would appear best to plant in groups amongst other species, especially larch, and more especially larch when canker is to be feared. If large timber is required the crowns can be given room to spread after the larch has been removed and by forcing it up in company with its own species one of its chief disadvantages, that of low forking, will be largely done away with.

Natural regeneration is easy as a rule but fairly early thinning is necessary, as the plant, if it takes well, is fairly uniform in size and rate of growth and grows so quickly that if left untouched the individuals are extremely thin and lanky and check very easily in height growth owing to the ease and rapidity with which side branches are put out. Sycamore can stand some shade, and can be used for filling up blanks and open spaces in larch or amongst light demanding hardwoods, preferably always in the master places. As has already been stated, large sycamore is extremely valuable, and it appears that the fact is not generally known. Quite recently more than one case has been seen of trees with a diameter of over 50 inches lying cross cut into short lengths useless for any purpose. These trees could have been sent to Lancashire from any part of England with excellent profit to the owner, who in one case has successfully converted timber worth £15 into firewood worth about £2 exclusive of the cost of sawing.

Poplar.

The question of ordinary poplar was dealt with at length in a

comparatively recent article in this Journal* to which those interested can refer, but there are still certain points regarding cultivation that are not yet cleared up. One of these is the question of planting distance. Years of practice have proved fairly conclusively that willow does not do well in plantations, however far apart, and it is more than possible that poplar, a tree with very similar demands for light, will be the same. There are few instances extant of successful poplar plantations but many instances of successful poplar trees when grown in lines. Again the question of species arise. Most people plant black Italian, but on certain soils, especially those inclined to be chalky, the gray variety will probably prove most satisfactory.

Working by the acre, Mr. H. J. Elwes gave it as his opinion that 75 trees per acre was the maximum to be expected, yielding about 120 feet per tree. This is equivalent to a distance apart of about 24 feet, which means a considerable amount of crown interlacement. 30 feet by 50 would seem a better distance if large timber is to be worked for. Planting is naturally a cheap matter, as stems in the beginning need not be planted closer than 16 feet apart if it is assumed from the first that heavy partial clearances or thinnings are an absolute necessity. As regards the interspaces the planting of spruce is frequently recommended. From an economic point of view this is perfectly justifiable, but it must be remembered that this planting may affect the poplars. Spruce is well known to be greedy as regards water, and as with poplar it is a surface feeder. The demands of the spruce for water may have a very definite effect on the growth of the poplar, and an effect which is not at all to the good.

In the article referred to above some fifty or sixty uses for poplar were given. To-day most of them still stand with the exception of aeroplane work and pit tub boards. In the latter case this is due to safety regulations which demand that tub-sides must allow of no leakage of coal dust which increases the ever-present danger of fire damp explosion. As a braking material on a large scale poplar is far superior to the best brake lining compositions, and it is still used on the winding drums of many collieries.

A variety of poplar that has been much neglected in the past, and is well worthy of experiment, is the aspen. Little interest has been taken in this tree in spite of the fact that there is an almost inexhaustible demand for it for the purpose of making matches.

* Vol. 18, 1923-4.

One firm alone (Messrs. Bryant and May) use over 1,000,000 cubic feet of aspen annually for safety match and match box making. Here is a species definitely in request. Large sizes are not asked for, a diameter of 10 to 20 inches is being used. Length is unimportant, as the logs are cross cut to 24 inches or so. All that is required is that they shall be fairly round and clean. In spite of this easy specification and definite demand, no serious attempt has been made to find out whether the growth of aspen in this country as a forest crop is possible or not. Enormous sums have been spent in trying out exotic species that we *may* sell, and nothing has been spent on a native species that we *can* sell. An unfavourable verdict has been passed on a species generally considered a weed, growing anywhere in a mixed wood and stunted or contorted in its effort to get the maximum amount of light. Pioneer work has, however, been started by Messrs. Bryant and May themselves, who are planting several thousand acres in Scotland. Mr. McBeath, who is in charge of these operations, estimates that timber fit for felling will be obtained on a 30 years' rotation with a volume of at least 3,000 feet per acre.

Aspen is not particular as to soil, but does not do well in high temperatures. In Europe it forms forests in Germany, Russia and Hungary on low lying areas, whilst in Finland, the chief source of supply to this country, it is more or less sporadic. It may be raised from root or from branch cuttings; the latter method is easy, but good young trees from which to obtain the material are scarce. Seed is difficult to obtain, and vitality does not last very long. Growth from root suckers does not appear satisfactory.

In Argyllshire four-year root cuttings have attained a height of 16 feet. Two-year seedlings in the Royal Agricultural College nursery have grown six to eight feet two years after transplanting. If seed can be obtained, it must be sown at once and not covered with soil but watered or lightly rolled in.

As a rule manufacturers will take comparatively small lots of 5 tons or so or about 150/200 cubic feet. There is no regular English market price, but it is stated by a competent authority that 2/- per cube foot is perfectly possible. Even at 1/6 it would be a highly profitable crop.

Spanish Chestnut.

Spanish chestnut is a tree that in the South-West might have much more attention paid to it. On deep warm well drained soils

it grows much faster than oak and is much easier to raise. In the earlier stages it is a very fair endurer of light shade, but as it gets towards the pole stage its demand for light appears to increase and if this demand is not complied with the poles tend to become curved and twisted. At 50 years of age it will often have a quarter girth of 12 inches and more, which is almost double that of oak of the same age, and as a matter of fact a 12 inch quarter girth tree is large enough for most trade purposes except for coffins. Ring shake is common in the Midlands, especially on sandy or gravelly soils, and that is the chief drawback on these soils, as such timber cannot be planked or even converted to "furniture squares." It generally finishes in such cases as brush backs or cask "shives" (bungs). Mixed with larch its effect is good, as it is an excellent soil preserver and an outstanding advantage is that the poles being saleable it can in the case of failure as high forest be converted to coppice, which will often flourish on heavy soils unsuited to large trees. It is a species which appears to thrive well on "cutting over at the collar" when once established. P. T. Maw estimates that Quality 1 chestnut at 60 years will pay better than most conifers, and that at a price of 10d. per foot which is now easy to exceed. Chestnut, however, appears to do better in groups mixed with beech, larch or oak than when planted in pure blocks. Nowadays coppice is very definitely the most paying method of utilizing this species.

The growing of chestnut as a coppice crop is a comparatively old industry and has existed in the South-Eastern counties for over 100 years at least. The poles were used for various purposes, but chiefly in the hop fields. Prices from 1858 to 1885 were good. On one estate poles off a poor greensand realised from £20 to £36 per acre. After that prices fell away, and it was not till the chestnut pale fencing came into use that prices have increased and up to £50 per acre were realised. At the present time prices are much lower than this, but are still good enough to make this industry one of the most profitable types of forestry work it is possible to carry out.

Until fairly recently the growing and working of chestnut poles for fencing was more or less confined to Kent, Surrey and Sussex, but the industry is now being successfully carried on in the South-West, notably on the Huntley Manor Estate in Gloucester, the owner of which, realising that his woodlands were better suited as a whole to coppice than highwood, has very wisely decided to develop his underwood in this way, and is thus able to produce

a 100% British product with British timber, British wire and British labour.

The industry as a whole has to compete against fairly strong foreign competition from France, but provided the cost of wire does not increase has little to fear from this, nor does the demand show any signs of lessening. The actual rotation of the underwood is from 12 to 16 years, and it may be pure or as coppice with standards. The latter is not recommended, as poles near trees are apt to bend and twist towards the light and render themselves useless for rearing purposes. If larch is used this trouble is not so pronounced owing to their very light shade. A common method of establishing plantations is by planting a mixture of larch and chestnut in the proportions of larch 5 x 2½ feet and chestnut 5 x 5 feet, giving 3,484 larch and 1,742 chestnut respectively. Thus there is a line of chestnut and larch 2½ feet apart, then a line of larch and one of chestnut and larch. Age of chestnut 2 year 2 year and larch 2 year 1 year. At the end of the first rotation, say 12 years, the single chestnut stems are cut and most of the larch. Blanks in the chestnut are then filled in. (If the chestnut has failed as a whole the wood may be left as pure larch). At the second cut the crop should be about 2 to 4 poles per stool, at the next cut from 5 to 8 poles per stool. A satisfactory crop is about 3,000 poles per acre suitable for rearing.

On other estates the practice is to plant pure chestnut at 3 feet apart. A large number of stems does not always prove the best policy. On one estate at least the stems are being kept down to one or two only per stool, the reason being that they grow straighter and can be cut earlier. It must also be remembered that chestnut poles can be grown where chestnut timber cannot be raised satisfactorily even on fairly heavy clay soils. They can also be raised on so-called chalk or oolitic formations provided that there is no lime near the surface.

Filling of blanks may be done by transplants or by layers, but care must be taken that these plants are not suppressed by their neighbours, as their growth cannot keep pace with that of coppice shoots.

Prices naturally vary, but very approximately these poles topped at 2 inches are worth about 50/- per 100 at about 16 years as a rule. This price is free on rail. Cutting out costs approximately 12/6 per 100 so that if profit, cutting and carting to rail is put at 27/6, the standing value is about 17/-, or about £25 per acre.

One great advantage of this crop is constant employment, as the men can cut during the winter and split during the summer.

According to Mr. T. Roberts* the prices for pale making are much as follows :—

6 foot	3/6	} per 100
5 foot	3/-	
4 foot 6 inches	2/9	
4 foot	2/4	
3 foot 6 inches	2/-	
3 foot	1/9	

It is not sufficient to have a suitable soil situated in a suitable district to grow broadleaved trees in a manner satisfactory to the pocket. Aftercare and proper thinning are extremely important in order to ensure that a maximum quantity of the tree is suitable for conversion and sale. A merchant buys the whole butt and pays for it on the basis of total content minus 21½% for slabs and sawing, but whilst on some trees this 21½% is too great an allowance, on most it is too small. Taking the matter generally the wastage in the rougher barked species is as a rule greater, so that perhaps an extra 20% has to be borne by the converted contents, thus increasing the cost of conversion per foot, and the purchase price being lowered accordingly. As regards sports ash it is better to sell direct to the consumer if possible, but it must be remembered that he only requires the best part of the tree, and the inferior trees and portions of trees will be more difficult to dispose of by themselves. It has been often said and very correctly that all timber has a market somewhere. The difficulty is to find the particular market, and with the casual methods employed as a rule for marketing home-grown timber this difficulty is much increased. There is no central source of information either for buyer or seller, whilst in the foreign timber trade the buyer knows what there is available long before he wants it and can lay his plans accordingly. In such a case steady supply, and certainty of steady supply encourages demand. With greater co-operation between grower and merchant a central pool for information could be formed, and if this was so, merchants in a certain district would be able to ascertain the approximate amount of timber likely to come on the market in the next few years. Landowners would be able to find out what the demand was likely to be and could put forward or hold back their fellings accordingly. Every industry in the country practices market research as a necessary concomitant to success. Here is an industry employing thousands of people

* Quarterly Journal of Forestry, 1929.

with a turnover of £2,000,000 per annum and an invested capital of many millions in which market research is confined largely to private individuals.

The Utilization Department of the Forest Products Research Board set up a few years ago is a definite step in the right direction. It has done and will do good and useful work, but it is not enough, as a government department never has such a wide scope as a body supported by those interested in the trade. Moreover there is a distinct tendency nowadays for the country as a whole to depend on "spoon feeding" by government departments, a fact that does not always help progress. Government departments can help, but they cannot do everything.

There is an old saying to the effect that one "cannot make an omelette without breaking eggs," which is equivalent to the obvious fact that in business one cannot get something for nothing. What is needed is, as has already been stated, some central organization or committee set up by those financially interested and supported by some very small levy on acreage or on the amount of timber dealt with, a type of practice successfully carried out in other industries. Timber growers, timber users and manufacturers of wood preservatives have successfully started an organization to further the care and preservation of timber, and there seems to be no reason why timber users and timber buyers should not unite in the same way to their own mutual advantage. There are associations of merchants and associations of foresters, of land-owners and landagents, but there is no association where they can work together for their joint financial benefit.

Again, reverting to the subject of hardwoods in particular, little is done to improve our silvicultural knowledge, as is done with conifers. There are official yield tables for conifers, also bulletins and pamphlets without end, conferences dealing with softwood supply and a conifer conference arranged by the Royal Horticultural Society. There are none of these things for hardwoods, species that we know grow well and sell well. And yet whilst only 3% of our commercial conifers are home-grown over 25% of our hardwood supplies come from native sources.

Finally might be added the opinion that growers of timber might take much more interest in actual trade prices as cases frequently arise of timber offered off estates at prices which have no connection at all with the state of the market. An actual example follows to illustrate this point:—

A quantity of alder poles for river bank repair was required

recently by a private estate not far from London. Considerable difficulty was experienced in finding a source of supply, and eventually an estate in East Anglia quoted a price f.o.r. which on enquiry proved to be exactly the same as the trade price delivered in London from areas the same distance away. Here one has two examples of the difficulties that home-grown hardwoods have to face, firstly the difficulty in tracking down supplies, and secondly a definite lack of knowledge on certain estates regarding prices actually ruling in the trade itself.

As regards silvicultural and economic methods of treating hardwoods, there should be a much greater exchange of opinion between foresters, as nowadays for every one article or note on hardwoods in professional journals and papers, there are a hundred on conifers.

In this paper an attempt has been made to show that the cost of growing broad leaved trees is not as heavy as it is generally considered to be. That a hardwood shortage is just as likely as one of softwoods. That by substituting conifers for hardwoods on hardwood land, selling problems are being set that will probably be far more difficult to solve than the problem of selling hardwoods, provided always that the latter problem is approached in a business-like and co-operative manner.

VIII.—A SURVEY OF SHEEP FARMING SYSTEMS.

By J. F. H. Thomas, Vice-Principal, Royal Agricultural College, Cirencester.

No other branch of animal husbandry presents such a diversity of methods as sheep farming ; many varied systems of management exist in localities of contrasting climate, soil and elevation, with the further complication of great variety in the breeds and cross-breeds kept, yet there has been relatively little systematic investigation of sheep farming systems.

In October 1930, the Experiments Committee of the Bath and West and Southern Counties Society approved of a scheme of enquiry into systems of sheep farming practised in the following seven counties—Cornwall, Devon, Somerset, Dorset, Wiltshire,

Hampshire and Gloucestershire. The main objects of this scheme may be briefly summarised :—

- (a) To remedy the present lack of any large scale enquiry into sheep farming problems.
- (b) To obtain information on the varied methods of sheep farming practised, with particular reference to breeds and crosses kept, and their especial suitability to different localities.
- (c) To ascertain the success of recent modifications in methods of feeding and management.
- (d) To obtain reliable information on the main causes of loss in farm flocks, and to ascertain the practical value of control and remedial measures.

As a preliminary step questionnaire forms were sent to a large number of flockowners residing in the above-named counties. The response to this circulation was highly satisfactory, and from the information given, the writer (acting in the capacity of Hon. Investigator) prepared a preliminary report which was printed for limited circulation in March 1931. The returns received related to flocks totalling over 36,000 breeding ewes kept under most varied systems of management—from the close folding practice of the arable uplands to the extensive range conditions of moorland farms on Dartmoor and Exmoor, and from the lowland grazing areas of the South-West, to the dry upland grazings of the chalk Downs.

In the Preliminary Report the extraordinary diffusion of “imported” breeds is shown by the fact that pure-bred ewes or rams of no less than 18 different breeds have been reported; of these only about half can be regarded as indigenous to the area under survey. The prevalence of cross-breeding practice is well emphasised by the mention of at least 82 distinct types of crosses being bred. At least 40% of the total breeding ewes are kept for cross-breeding; of these a considerable proportion are already *cross-breds*, in fact the variety of cross-bred ewe types exceeds in number the variety of pure-bred ewe types.

The information received indicates a marked tendency for certain breeds of ram to predominate in the cross-breeding practice of certain counties; thus in Somerset, the Southdown and Dorset Down are most in favour, in Wiltshire the Hampshire Down, Ryeland, and Suffolk are popular, whilst in Hampshire the Suffolk and Southdown are most commonly used. Another interesting feature of the region under survey is that it includes the important

early fat lamb-producing areas of Dorset and Somerset, as well as localities where late (April) lambing is essential owing to conditions of climate, elevation and breed. Of the flocks described no less than 14% are lambled during the months of September to December, and 33% are lambled during March and April.

Of particular interest was the information given on flock-breeding results; unquestionably management and climatic conditions play a much greater part in determining the "crop" of lambs than the breed or type factor: for instance, in the case of flocks of similar type, kept under comparable conditions, the yields of lambs per 100 ewes mated may shew a variation of from 90% to 130%. Although certain types of ewe, *e.g.* the Half-Bred are consistently prolific, in some cases ewes of breeds considered lacking in prolificacy have reared very good lamb percentages.

The final part of the preliminary report deals with the causes of loss in ewes and lambs, and these causes of loss are mentioned in order of frequency of mention. This enables a distinction to be made between causes of loss which are of general or major importance (*e.g.* in ewes "bad lambings" and udder disorders, and in lambs, parasitic infestation), and causes of loss which are equally serious yet less general in distribution, *e.g.* abortion in ewes, dysentery and navel ill in lambs.

During 1931 the writer, as honorary investigator, was able to visit over 120 of the flockowners from whom information was received in the preliminary investigation. Through the unfailing courtesy and readiness to help on the part of all flockowners concerned, it was possible to collect an immense volume of practical information relating to all aspects of sheep farming, especially with reference to cross-breeding, management, and the control of diseases. A brief summary of this information was prepared and published as a Second (or interim) Report in October 1931. The subject matter of this second report is of a very general nature, since it is the Committee's view that definite recommendations on such important matters as cross-breeding and general flock management should be deferred until more facts and opinions have been collected.

The second report deals with various aspects of cross-breeding practice, pending later definite recommendations which will be made for the guidance of those who wish to make changes in their system of sheep farming.

In a section on Flock Management reference is made to the extending practice of breeding from ewe tegs or hoggs; further

evidence is being collected of the success of this practice. Considerable attention is being given to a study of systems of grazing and general management with a view to the avoidance of "sheep sickness." This cause of unthriftiness and loss in flocks has tended to become more widely experienced with the decline of tillage—particularly in certain districts, and already there is a definite indication that "sheep sickness" in South-West England is mainly due to serious infestation with internal parasites. Amongst other problems of a widespread seriousness to which close attention is being paid, are—lameness—through footrot and other causes, and the cause of sudden deaths in young fast-thriving lambs. Already considerable progress has been made in the study of these and other problems, but a further period of investigation is essential before successful control measures can be recommended. The problem of footrot and its control is in itself an inexhaustible subject; there appears to be a marked degree of variation in the virulence of the causative organism (or virus) in different localities; even when allowance is made for differences in labour efficiency, on some farms flocks can only be kept sound through constant care and attention; on other farms the disease is rare.

This is but one example of a problem of grave importance and absorbing interest.

In conclusion, can this investigation justify itself by useful results? In answer to this, in the case of sheep farming with its extraordinary diversity of forms, it is particularly difficult to carry out controlled experiments, *under typical conditions*, which will have a *general* value. By the collection of facts and observations from flockowners of wide experience, very valuable knowledge can be accumulated which will serve two purposes. There is first a great need for a wider dissemination of that knowledge for the benefit of other flockowners, but it should also serve for the future guidance of those research workers who are in a position to investigate important problems of sheep husbandry.

N.B.—The Committee of Wiltshire farmers who have been responsible for Sheep Breeding Trials in the County have been good enough to allow the publication of a resumé of their results in the Journal, as having a direct bearing on the Society's Survey of Sheep Farming. This will be found in the following article kindly prepared by Mr. A. Hurd.

IX.—WILTSHIRE SHEEP BREEDING TRIALS.

By Anthony Hurd.

(Copies of the full report on the three years' Wiltshire Sheep Breeding Trials, as published by the Committee, can be obtained from W. T. Price, Agricultural Organiser, Polebarn House, Trowbridge.)

For the past three years sheep breeding trials have been carried out by a Committee of farmers in the Marlborough district. The idea of these trials originated in a discussion that followed the first of the shepherds' Christmas suppers in Marlborough in 1928. It was the general feeling of the flockmasters and shepherds present that more definite knowledge was needed about the breeds of grass sheep and the crosses best suited to Wiltshire conditions.

Colonel Stibbard, the commandant of the Army Vocational Training Centre at Chiseldon, offered the use of Herdswick Down for a trial, and a number of flockmasters readily agreed to send consignments of ewes and single lambs to the trial ground for the summer to enable an exact comparison to be made of the merits of the most common types of grass sheep found in the county.

In this trial (1929) there were 15 ewes of each of the following breeds with their lambs: Cheviot Ewes crossed with Ryeland and Suffolk Rams; Exmoor (Suffolk and Merino-Romney rams); Kerry Hill ewes (Hampshire Down ram); Welsh Mountain Improved (Hampshire Down ram); Hampshire Down (Ryeland ram) and Half-bred (B. Leicester-Cheviot) ewes crossed with Suffolk ram. The task of weighing the sheep regularly and observing their rate of growth was undertaken by Mr. H. W. Tomlinson, a member of the staff of the Wilts County Council.

For the following season (1930) a trial was planned to compare the merits of the several breeds of rams which are commonly used for crossing with grass ewes in Wiltshire. Members of the Committee offered four ewe flocks of 200 for the purpose of this trial. These were Cheviots, Exmoors, Kerry Hills and Half-breds, and a smaller flock of 40 Welsh Mountain Improved ewes was included. Thus 840 ewes were used in this trial. Each flock of ewes was divided into four lots which were separately mated with Hampshire Down, Oxford Down, Suffolk and Ryeland rams. These rams were chosen as typical of their breeds.

The flocks remained throughout on their owners' farms and were

under their management. Thus the factor of management had full play in the second year's trial.

In the third season (1931) a trial was carried out to compare the merits of different types of ewes when mated to the same breed of ram. Six lots of forty ewes were mated to Hampshire Down rams and run as one flock for the season. This trial was made possible through the generosity of Mr. George Wilson, of Ramsbury, who provided the sheep, the land and the labour. Those who wish to study the detailed results of these trials can obtain the Committee's report from the offices of the Wilts County Council, Polebarn House, Trowbridge.

It may be of interest to sheep owners in the southern and western counties to know briefly the conclusions reached by the Wilts County Sheep Trials Committee from the three years' trials. Some optimists expected the Committee to evolve a new breed of grass sheep perfectly suited to Wiltshire conditions. The Committee consists of practical men, and they never had any such aspirations. Even within the area of one county there are so many variations of soil and altitude that no one type of sheep could possibly satisfy the requirements of all the farmers in the area.

What the Committee has learnt is that in commercial practice flock management counts for more than breed or the quality of pasture. There is more magic in management than in breeding. First of all, the trials show that a high percentage of twin lambs is essential to cheap production. In the 1931 trial it was found that at weaning time a twin of lambs was equal to at least 1.6 singles in live weight. This was the record of the poorest lot in a very difficult season. The practical point is that every effort should be made to flush the ewes at tupping time. The records of live-weight increases, referring to many different crosses, show that the normal ewe has ample milk to rear a pair of twins for, at any rate, the first three weeks. From then onwards it would pay to make special provision for those ewes with twins, so that the maximum rate of growth is maintained.

In selecting rams for cross-breeding, type and conformation are more important than breed. It pays the commercial sheep farmer to buy good rams. One sire stamps his characteristics on the progeny of fifty ewes. In their report, the Committee recommends that when a high proportion of twins for fat lamb production is the aim, a small, compact type of ram should be selected. This choice should give a full crop of lambs which will be fat for the butcher

at an early stage. For store lamb production, a larger type of ram is required to give the size and frame that winter feeders require. It is noted that in breeding for store lambs, level ewes and rams of good type are even more important than for fat lamb production, since variations and defects become more apparent as maturity advances.

Under hard conditions, the smaller breeds of ewe show a slight advantage because they need less keep for their bodily requirements. But the trials show that age and general thriftiness are more important considerations. Poor feeding during the winter most seriously affected the ewes carrying twins and the older ewes. Better keep than is normally provided by hill pasture, hand feeding if necessary, is required to bring such ewes to lambing in good order.

Little trouble was experienced at lambing time in these trials, though it is obviously desirable to select kind-headed and fine-shouldered rams for mating with young ewes. Few flock owners realise the heavy rate of mortality during the lambing season. Under ordinary conditions about 20 per cent. of the lambs born (alive and dead) do not reach the age of one month. In grass flocks these losses can be minimised by treating the ewes well through the winter so that the lambs are strong at birth.

Shortage of milk is not a limiting factor during the first three weeks and the experience gained in these trials indicates that heavy feeding of concentrates during this period is unwise as the normal ewe is supplying all the milk required. An excess of milk may be the cause of some of the deaths commonly attributed to wool ball. It is remarkable that the best grown single lambs often succumb. The trials indicate that in the early weeks the lamb's capacity for growth is influenced jointly by the ewe and the ram. It is inherent qualities and not so much the ewe's capacity for milking which determine the rate of growth during the first three weeks. From then onwards the skilful management of the grazing to provide fresh growing herbage for the ewes and lambs is the important factor, with consistent attention to any signs of worm trouble and foot rot.

Each summer it was found that the live-weight increases made by the lambs had a definite relation to the seasonal changes in the quality of the grazing. An over-grown grass ley in 1931 checked progress far more seriously than shortage of keep on bare downland in the drought of 1929.

Until recently very little definite information has been available on the management of grass flocks. Those who have large areas of poor grazing may be content with extensive production, but there are many farmers who aim to manage their flocks on more intensive lines. Personal experience on one's own farm is the best criterion, but the trials carried out by this Committee of Wiltshire farmers have proved useful in confirming the opinions of flockmasters. Certainly, in the county itself a new interest has been awakened in the problems of breeding and management.

X.—THE SOCIETY'S EXHIBITION AT BRISTOL.

By F. H. Storr.

The Society's Exhibition in 1931, under the Presidency of His Grace the Duke of Beaufort, was formally inaugurated by The Lord Mayor of Bristol, on Wednesday 20th May. It can be claimed unhesitatingly as another of the long line of successful Shows which have been held by the Bath and West in the biggest city in the Society's area of operations. The attendance, it is true, did not approach the figures of previous visits, but when it is remembered through what a serious depression the country was passing, and how badly many Agricultural Societies fared in the course of the season, it is remarkable that not only the quality of the exhibits was so uniformly high, but that the financial results were distinctly good.

The site at Ashton Park was as fine a one as the Society could wish for, and a deep debt of gratitude is due to the Hon. Mrs. Smyth for allowing, and to Mr. H. B. Napier for his good offices in obtaining, the use of the park for this purpose. It is satisfactory to find that in spite of the amount of rain that fell during and after the show, no real damage has been done to the turf, a result for which the careful handling of the traffic by the Great Western Railway officials is partly responsible. For the third successive Bristol Meeting Mr. G. Nichols acted as Secretary to the Local Committee, which, under the chairmanship of Sir Sydney Humphries, and with the help of Mr. W. J. Cornford as co-Secretary worked unremittingly to make the Show a success, both from the point of view of the Society and of the City. Their contribution

of £700 enabled the Stewards to offer the highest amount of prize-money ever provided. In fact several records were set up; the amount of space occupied by the exhibits of Implements and Machinery and the number of entries in the Horse Section are examples. The Lord Mayor gave a civic welcome to the Society at a dinner to which Stewards and Members of Council were invited on the evening before the opening of the Show, while the Bristol Savages repeated their well-remembered hospitality of 1921 at a club evening, at which a most enjoyable programme was provided.

The entries of Live Stock at Bristol showed an all round increase over those of the previous year, an increase particularly in the Light Horse Classes. Shire Horses numbered only 15, but among them provided a good class of three-year-old fillies headed by Sir Gomer Berry's "Tysoe Gem." Shires, over three years old, cannot be spared at this time of the year for four days, and the experiment is to be tried of releasing them at the end of the second day. The display of Percherons was of a high quality. Mr. J. P. Morgan's mare "Baudruche," Sir Henry Hoare's colt "Stourhead Drayman II" and Mr. Morgan's filly "Aldenham Lady Grace" were good examples of power and free movement. The Hunters were again especially good; out of several strong classes those for yearlings and two-year-olds were perhaps the best. Mr. A. E. James' "WindyrIDGE" was a neat chestnut of good type, and Mrs. Philip Fleming's "Willie" showed quality and good action. Among Hunter Brood Mares "Lady Dorchester," Sir Henry Hoare's beautiful mare added to her record of triumphs, and the presence of four of her progeny in the Show Yard at the same time was an historic event. Altogether these classes provided many animals of promise, and were perhaps stronger in this respect than the Hunter Riding Classes. Here the division of the Novice Classes answered, as each attracted a good entry. The Pony section was again a strong feature of the Show. Arabs were good and 14 entries in the Shetland breed must be considered satisfactory. There was a very strong class for Exmoor Mares which did credit to the breed. But the best standard of all was reached in the Polo Pony section, and in this perhaps the outstanding class was that for two-year-olds, which was won by Miss Calmady Hamlyn's "Patience." Children's Pony Classes filled well, and the Children's Jumping Class was sufficiently successful to warrant a second class of this type in future. It is worthy of note that the breeding of all animals in the Horse and Pony Classes appear in the Catalogue,

and that no entries of "Mr. Blank's Nomination"—a fault at many shows—are permitted.

In the other Stock Classes several of the Judges were good enough to send in reports of the breeds they had judged, and their remarks, given below, testify to the high standard of the Stock exhibited.

Mr. Albert Weightman writes :—" British Friesians were numerous and meritorious, a most pleasing feature of each class being the absence of inferior animals. Mr. J. R. Upson's winning cow, "Moulsoe Elsie 2nd," that was subsequently female champion, is a rare quality dairymaid with a lovely vessel. A strong class of two-year-old heifers were headed by Mr. Arthur Allen's "Glen Wallaby," that won at Torquay as a yearling and that well-maintained her form and promise. She was reserve for the female championship. A model July youngster, "Cliffordchambers Gemina," won a good class for yearling heifers. Three excellent animals of rather differing types and ages topped the mature bull class, with last year's Royal Show champion, Mr. George Gee's "Douneside Marcellus," first, and subsequently male champion. Deep, wide, strong, low-set and masculine, he is an ideal pattern of the improved modern British Friesian sire. The Yearling Bull Class was one of the best of its kind seen for some time, and it provided a keen tussle between the two leaders, both of which were bred by Mr. J. R. Upson, whose "Saracens Meibloem Don" eventually gained the verdict, as well as reserve for the male championship. As a whole the section was level, the exhibits were of a high standard and competition throughout was keen. The animals paraded for the championship awards were magnificent specimens."

Mr. L. Gordon Tubbs sends the following report :—" It was my privilege to judge the Jersey Classes at the Bath and West Show at Bristol. For many years past the Jersey has been well represented, both in numbers and quality at this Show, and this year was no exception to the general rule. Without exception the Classes were well filled, and in the majority of cases the standard of quality throughout the various classes was maintained from top to bottom—particularly was this the case among the old cows, the two-year-old heifers and the yearling bulls. The class for two-year-old bulls was, as far as quality goes, the weakest, and one or two of the exhibits were considerably fatter than they should have been. The class for yearling heifers was, as usual, numerically the strongest and was by far the hardest to judge as there was no really outstanding animal; had this class been judged on the score card system there

could not have been more than a few points between the first and the last, and doubtless in front of another judge on a different day, the final placings would be varied considerably. The yearling bulls, on the other hand, were headed by three really first-class exhibits, the winner being a son of the winner of the old bull class. At the conclusion of the judging it was interesting and gratifying to learn that a number of new exhibitors had been successful."

Mr. H. H. Laity writes :—"Taking the Guernsey Classes as a whole they were well filled. The weak spot was the cow class, calved before 1928, only three animals came out. The first "Engen Gentle 4th" was an easy winner, she has a well-shaped bag, and milked out well. In the three-year-old class the first and second prize winners came from the herd of Mr. Dunkels and are very promising young cows, and should be heard of again. In this class, out of 10 entries, there was one absentee. This was the strongest of the female classes. There was an entry of 8 in the two-year-old class. Again there was one absent. Mr. E. H. Rose led in this class with "Leweston Gladness," a rare heifer with a good shaped udder, teats well-placed, and she milked out well. The same breeder had second. In the yearling class for heifers there was an entry of 18 ; all came forward. This was a strong class, and was led by Mr. Gerrish's "St. Just," a very promising heifer which will be heard of again. Mr. Dunkels was second, and Mrs. Sutcliffe Pyman third, with a nice heifer that will improve with age. In the bull class eight were forward, Mr. Roach leading with "Halwyn Majesty," the second going to Sir Gordon Ley with "Fernhill Rose Lad." Ten two-year-old bulls were forward and were a really good lot, Mr. Dunkels led again with "Fernhill Robert 5th," a bull with a good top. There were 8 yearling bulls forward, "Bushbury Surprise" being the winner for Mr. R. C. Vaughan, Sussex."

Mr. W. H. Dean sends this report on the Hampshire Down Sheep :—"Class 159 for Shearling Rams had a good entry and keen competition, there being some well-developed animals, showing that although wealthy in flesh they had not become coarse or lost their coats. Class 160 : In this single Ram Lamb class there was again a good entry and some good lambs, showing beautiful coats and very true to type. The lambs lacked the size which has in previous years been a characteristic, but they were none the worse for that. Class 161 : In this Class for Pens of 3 Ram Lambs there was very keen competition indeed and a large entry. Here I found some excellent lambs, forward in every way, beautiful coats, and good specimens to show the early maturity for which the

Hampshire Down is noted. The first prizewinners in this class (Major Bland's), were awarded the Championship and were a very matching pen. Class 162 : This had an entry of 3 Pens of Shearling Ewes, and these showed some good coats, very clean and free from coarseness, of an excellent type. Class 163 : This Class had another good entry, and again there was very keen competition. The lambs were true to type, clean, with beautiful coats, and it was a pleasure to see such well turned out lambs. The Hampshire Down Classes were, I noticed, the best filled of the Sheep Classes, and I think the Breeders are to be congratulated on their good exhibits."

Mr. A. Leney reported that Middle White Pigs were rather short in number, several entries not turning up :—"Boars farrowed before July 1st, 1930 : "Pendley Apache" won easily, showing good male character and great wearing qualities ; could be better in fore-legs, otherwise hard to fault. "Norsbury Woodman 8th" was second ; he has great length, but fails in ears and hindquarters. "Vockley Prince 2nd" was third, a long bodied boar, should fill out and improve with age. "Barston Apollo" reserve, and a good headed boar of Mr. Hicks' breeding, highly commended. Boars farrowed after July 1st, 1930 : "Burford Goliath" was first, a well grown masculine pig, showing plenty of character and should be heard of again. "Shawlands Bold Boy 24th" was second, a nice young boar, with plenty of character, but his head could be better. "Pendley What's Wanted" was third, a good sort, but very bad on his legs and moves badly ; will not wear : "Vockley Prince 4th" being reserve. Sows farrowed before 1930 : "Pendley Princess 4th," an easy winner, good in body and head, but carries her ears badly. "Pendley Princess 2nd" was second, she has great length but is weak in top line and will not wear like the winner. "Mistley Grace the 98th" was third, a neat fine shouldered sow, wants a bit more scope and boldness in the head. Sows farrowed after January 1st, 1930 : "Shawlands Miss Dorothy 7th," an easy first, a very nice gilt and should improve ; wants a bit more character in her head and has some doubtful teats. "Barton Lady 10th" was second, a fine boned gilt but lacks Middle White character ; "Shawlands Gracious Lady 8th" being third, a nice type of gilt, now at her best, will not improve with age. "Yockley Atbara 4th" came third, bad head and too far from the ground. The reserve had a bad jaw. July Gilts : "Pendley Fuchsia 18th," a grand gilt hard to fault, and with a little more flesh should make a name for herself. "Shawlands Graceful 10th," another good gilt, but weak on fore-legs and none too straight in the jaw, and rather harsh in the coat. "Yockley

Rose 2nd " was third, not a good head and too far from the ground.
" Shawlands Dorothy 59th " took reserve."

Mr. Frank Webb says:—"I append herewith a short account of the Large White and the Tamworth Classes at your recent Show. Large White Section: Although the Classes in this section were somewhat small, they were well represented by some very good pigs: it was perhaps noticeable that there were fewer pigs of an inferior quality than in previous years. Tamworth Section: The entries in this Class were rather low, but in my opinion the classes showed all-round improvement in quality, the Gilt which won the Bronze Medal in this section, was a deep, well-fleshed pig, of exceptional quality."

ENTRIES OF LIVE STOCK AND FARM PRODUCE.

	Swindon. 1929	Torquay. 1930	Bristol. 1931.
HORSES —(with boxes)			
Agricultural	53	16	39
Hunters, Hacks and Ponies ..	237	280	325
	—290	—296	—364
CATTLE —			
Devon	36	62	32
South Devon	—	23	15
Dairy South Devon	—	19	—
Shorthorn	30	23	22
Dairy Shorthorn	57	20	76
Hereford	12	15	14
Sussex	10	7	—
Gloucestershire	—	—	12
Aberdeen Angus	31	30	38
British Friesian	51	12	15
Red Poll	34	23	28
Welsh Black	11	—	—
Ayrshire	28	16	15
Blue Albion	7	—	10
Jersey	62	22	56
Guernsey	69	60	68
Kerry	13	—	—
Dexter	27	16	13
Dairy	94	52	64
Herds (Dairy, Milk Recorded, etc.) ..	—	—	35
	—572	—400	—513
SHEEP	172	167	129
GOATS	87	68	90
PIGS	249	230	197
POULTRY and EGGS	711	594	511
PIGEONS and RABBITS	283	256	206
FARM PRODUCE —			
Cheese	43	40	73
Cream Cheese, Butter and Cream ..	65	154	74
Cider	99	143	134
	—207	—337	—281
	2571	2346	2291

IMPLEMENTS.

The display of Implements, Seeds and Feeding Stuff was the biggest ever seen at the Society's Meetings, and was remarkable for the quality and variety of the objects shown. It is satisfactory to be able to state that a number of exhibitors have written to express their satisfaction with the Show, which, it would seem, was more productive of business than most shows in 1931. Electricity is coming to the fore, a fact emphasized by the complete demonstrations given by the British Electrical Development Association. This body organized a Conference in the Show Yard, and Members of Council attended a luncheon given by them. During the speeches it was pointed out how largely the Society itself now makes use of electricity in the Show Yard arrangements.

SPACE TAKEN FOR IMPLEMENTS, MACHINERY, ETC.

	Swindon. 1929	Torquay. 1930	Bristol. 1931
Machinery in Motion feet run	1498	1708	2072
Agricultural Implements and other Exhibits not strictly Agricultural	1225	1210	1360
Seeds, Cattle Foods, Artificial Manures, etc.	1206	1345	1441
Open Space for Farm and Horticultural Buildings, etc. sq. feet	50667	50477	66351

COMPETITIONS.

Besides the usual programme of Shoeing, and Butter and Junket Making Competitions, two special features were introduced at Bristol. There was first a Competition for Veteran Sheep Shearers of over fifty years of age. This, a suggestion from Mr. Eldred Walker, attracted fifteen competitors and proved to be a most popular and instructive display. The quality of the work was excellent, and the time taken to shear two sheep showed that the competitors represented a high standard of skill. The second innovation was a Splicing and Knotting Competition for Sea and Rover Scouts. Here again the degree of skill shown was high, and reflected great credit on Mr. W. Jeffrey, the Bristol Scout-Master. The Stewards were greatly indebted to him, and to Mr. Eldred Walker for their help in organizing these competitions.

In addition to the Competitions in the Yard the Bristol Local Committee enabled the Society to offer prizes for Milk Recorded Herds and for Herds of Pigs, and members of the Somerset

County Agricultural Committee provided the prize money for a Small-holdings Competition in the county. Messrs Hitch & Nixon judged the Herds for the Society and make the following report on the competitions :—

“ The herds of Milk Recorded Cattle on the whole were uniform, with cows of dairy type and character. The udders were well-shaped, and a general absence of those pendulous vessels so common years ago. All were shown in good condition and excellent bloom ; and mostly young.

“ Bulls : The owners had good serviceable sires in the herds. Attention was not only paid to the good milking records of their ancestors : but, also to the conformation, constitution, general characteristics and health. It is a good policy to retain good bulls longer, and a tendency to adopt this line was noticeable. It was gratifying to find the rearing of young stock on the increase. These in the future will prove a valuable asset, as undoubtedly well-bred cattle are scarce.

“ The leading herds were either pure-bred or grading up. This is a further proof that careful breeding and selection tell in the long run. The results of grading are necessarily remote ; but like the sands of time, they are slow and sure. Patience in the past has been always rewarded. It is one of the best investments a young man can make.

“ The management of the herds, premises and records was all that could be desired. This section has reached a very high standard of efficiency, and the judges had difficulty to differentiate. The judges wish to congratulate every competitor, and to thank them for their courtesy and kindness. The Bath and West Society deserves a tribute of commendation seeing that representatives of many leading breeds were entered in the competition, namely :—Dairy Shorthorns, Friesians, Blue Albions, Jerseys, Guernseys, Red Polls. It only goes to show how cosmopolitan are the interests of this Society.”

“ Pig Herds. This section was exceedingly interesting. Entries were made from the herds of : Large White, Wessex, Lop-Eared White, Gloucestershire Old Spots, and purely Commercial Herds. The competition was very close. The winner deserves a warm compliment. It is an excellent herd and the pigs are of a rare type—likely to satisfy the most fastidious. The interest should grow and this ought to be one of the most prosperous and popular of the Society's activities.”

Mr. E. Pritchard judged the Small Holdings Competitions, and his report follows :—"It was a great pleasure to me to see the marked improvement generally, on the Small Holdings in Somerset, since I inspected them in 1924. The condition and management of the stock showed great credit to the owners, the cows in many cases being particularly good. It was most interesting to see how the Small-holders adapted themselves to the conditions in which they were placed in the different districts, those on the larger holdings, nearest the towns, depended principally on producing milk for liquid consumption, whilst others made butter, and weaned, or, fatted calves. Some sent their cream to seaside towns; and one was making good cheese. In most cases the tenants were rearing a few calves from their best cows. I should like to have seen more advantage taken of the Ministry of Agriculture's Live Stock Improvement Scheme. Premium Bulls would be a great help, located in districts, to serve several holdings.

"Although the Small Holders in Somerset, have not the advantages of the farmers in Sweden, Denmark, and Holland, with their electric fans in the floors of their pig pens which have numerous windows, and many have electric light in their pig styes, yet, they were keeping, and fattening, pigs in styes, which they have in many instances built themselves, with materials costing a few pounds allowed them by the Small Holdings Committee.

"I was pleased to find that advantage was being taken of the low cost of artificial manures, both on the arable and pasture lands, the whole being well managed and free from weeds.

"I was pleased to see some young apple trees planted, and well protected, in some of the orchards, Somerset being noted for its good cider, and in view of other uses which can be made of this fruit, I am surprised more attention is not given to this side-line.

"In Class 2, the outstanding feature is the amount of produce grown by the first and second prize-winners on a small acreage, which they have converted from ordinary arable land, by intensive cultivation, into highly productive market gardens. Several of the entrants in this class kept particularly good poultry.

"I must congratulate the Somerset Small Holdings Committee on acquiring such suitable land for Small Holdings, which is the secret of the success of the scheme, and in having such thrifty, hard-working tenants who will be sure to hold their own.

"I tender my best thanks to Major Parkes, Major Cooper and Mr. Toomer for taking me round, and to Major Parkes and Major Cooper for their kind hospitality."

ENTRIES IN COMPETITIONS FOR MEN AND WOMEN.

	Swindon. 1929	Torquay. 1930	Bristol. 1931
Butter-Making (Entries now limited) ..	69	104	70
Junket Making	—	28	25
Shoeing	37	59	36
Shearing	—	47	15
Rope and Spar Making * (Hurdle Making)	*35	16	—
Live Stock Judging	—	44	—
Poultry Trussing	—	3	—
Splicing and Knotting	—	—	19
	141	301	165

MINISTRY OF LABOUR.

It will be of interest to Show Organizers to have the following account from the point of view of the National Employment Exchange Service, of the effect of the Show on employment.

An interesting feature of the Bath and West and Southern Counties Show is the facilities provided by the Ministry of Labour for the supply of all classes of labour. In every practical instance the Bristol Employment Exchange circulated exhibitors and caterers, pointing out these facilities and also arranged for a special employment stand to be available for the use of exhibitors at the Show ground, both during the preparatory stages, and also during the Show. The value of these arrangements will be recognised when it is known that approximately 300 persons were engaged through the medium of the Employment Exchange. It will be of further interest to know that the classes of labour supplied, included : demonstrators, salesmen, hairdressers, carpenters, handymen, barmen, waitresses, carvers, gardeners, etc., and the variety of occupations represented will indicate that the Ministry of Labour, through the Employment Exchange service, is in a position to render much helpful assistance to employers in the supply of all classes of professional, skilled and unskilled labour.

ATTENDANCE.

For the second year in succession the weather on the last day of the Show was bad, a fact which not only undoubtedly reduced the figures of attendance to a serious extent, but also added to the difficulty of gauging the effect of a four days as compared with a five days Show, and of the experiment of cheap afternoon admission fees on the first three days. Many of the Bristol townspeople who had not taken advantage of the one shilling admission on Friday

afternoon to watch the excellent display of Physical Training given by the Bristol Education Committee, were certainly kept away by the rain which started in the middle of Saturday morning. But whatever the effect on actual numbers, it seems probable that the cash value of the receipts was reduced by the reduction in afternoon charges. It was generally agreed that the Show was well advertised, and the Stewards again have to thank many voluntary helpers for valuable assistance in this matter. The final results can in any case be considered eminently satisfactory when so many Societies experienced far worse conditions of weather, and when the very high quality of the Show and the general satisfaction with it are considered.

NUMBER OF ADMISSIONS.			ADMISSION RECEIPTS.		
1929	1930	1931	1929	1930	1931
30,281	50,876	59,979	£3,530	£7,313	£6,480

XI. - REPORT ON THE SOCIETY'S DAIRY DEPARTMENT AT BRISTOL.

By A. F. Somerville, Steward.

The work of the Dairy Department was divided into :—

Produce ; Working Dairy ; Tests ; Goats' Milking Classes ; and
Sales of Produce.

PRODUCE.

Cheese. There were 63 entries of Cheddar, of which 7 entries were in Class 251, restricted to Students who had received instruction provided by the Somerset County Council, and 10 entries for the Caerphilly Class. In the open Cheddar Cheese Classes, Mr. A. H. Hunt, Dropping Lane Farm, Bruton, took all the First Prizes. Mr. G. W. Symonds, Wells, was the Judge, and gave a very favourable report of the exhibits as a whole.

Butter, Cream Cheese, Cream and Farm Produce. There were 48 entries for Butter ; 9 entries for Cream Cheese ; 10 entries for Cream, and 4 for the Farm Produce Class. These Classes were judged by Miss Bray, Chief Dairy Instructress for Devon, who commended the exhibits very highly.

“ Butter, good texture and free from moisture ; Cream and Potted Butter, excellent in quality.” As will be seen the Farm Produce Class only attracted four entries.

Butter-making. There were 60 entries for the three Classes, and 15 competed in the Champion Class on the last day. The Gold Medal was won by Miss M. Rounsevell, the Silver Medal by Miss H. E. Mitchell, and Miss R. Hancock won the Bronze Medal. Major J. A. Garton, M.C., was Steward in charge of the Working Dairy for the Competitions. The first three Classes were judged by Miss A. J. W. Nicholas, Chief Dairy Instructress for Cornwall, and Mr. A. Todd, The University, Reading, was the Judge for the Champion Class. The competitors were very keen, and a high standard of work was reached.

Junket Making. Miss A. J. W. Nicholas was the Judge for this Class, for which there were 25 entries.

The Churns. Workers, Delaitouse, Electric Power and Light were supplied by Messrs. Lister, of Dursley, and the cream for the competitions was obtained from the Cornwall County Farm, Helston, and was of excellent quality and delivered promptly, but a certain amount of cream obtained from the yard milk was also mixed with it.

TESTS.

There were two Classes for Milk Test as in previous years : Class 145 for Jersey, Guernsey and Kerry or Dexter Breeds ; Class 146 for all other Breeds. There were 13 entries for Class 145, and 13 for Class 146. For the Butter Test there was only one Class, and for this 18 animals competed.

The regulations as to times of milking, and disqualification for deficiency in butter fat, were the same as in the last two years, and times fixed for the two and three milkings also similar.

MILK TESTS.

Samples were taken and tested after each milking by Mr. W. H. Hopkins, Recorder for the Somerset and North Dorset Milk Recording Association.

The average results for each breed were as follows :—

<i>Breed.</i>	<i>Days in Milk.</i>				<i>Milk</i>		<i>Butter Fat.</i>
					lbs. ozs.		
Jersey	84.20	42	10.4	4.94			
Guernsey	60.66	49	12	4.58			
Dexter	79.66	27	8	3.78			
Shorthorn	45.80	56	0.8	3.47			
B. Friesian	61.16	68	14	3.00			
Red Poll	44.00	83	8	2.86			
Ayrshire	40.00	67	6	3.91			

The tables on pages 88-89 give the results of the Milk Tests.

BUTTER TESTS.

The Society gave three prizes, £10, £5, £2. The English Jersey Cattle Society offered a Gold Medal or £10, a Silver Medal, and a Bronze Medal, but animals had to obtain not less than 42 points to qualify for these Medals. The English Guernsey Cattle Society offered a prize of £5 for the Guernsey Cow obtaining the best results.

The Cream from the Milks, which had all been separated after each milking, was churned on the following morning, and Miss Taylor superintended the Churning, which commenced at 6.13 a.m., and was finished at 8.30 a.m.

The average result for each breed was as follows :—

<i>Breed.</i>	<i>Days in Milk.</i>			<i>Milk</i> lbs.	<i>Butter.</i> lbs. ozs.	<i>Ratio.</i>
Jersey	77.57	40.96	2	.02	20.25	
Guernsey	90.00	48.19	2	2.68	22.14	
Shorthorn	50.66	57.66	1	13.75	31.39	
B. Friesian	53.33	66.92	2	1.72	31.93	
Red Poll	44.00	83.8	2	4.25	36.86	

The tables on pages 90-91 give the result of the Butter Test.

It will be noted that no Cow won any of the medals offered by the English Jersey Cattle Society, all having failed to reach the required standard. This may be particularly due to the unfavourable climatic conditions. Major J. A. Garton, M.C., was in charge of the Milkings at 5 a.m. and 9 p.m.

SALES OF PRODUCE.

Milk from the Yard was purchased at 8d. per gallon, and it and products from the milk made at the Dairy were sold at the Pavilion, which was under the charge of Miss Keel. Mr. Read, with the assistance of Mr. Counsell took charge of the purchase of the milk, and kept the accounts of the sales of produce.

GOATS' MILKING CLASSES.

The Goats were divided into two Classes ; Class 197 for Quality (Butter Fat only), Quantity, and Lactation, two Milkings ; Class 198 for Quantity and Lactation, three Milkings. For Class 197

there were 27 entries, but two were absent. All Goats were stripped at 6 p.m. on May 20th, both Classes milked 6 a.m. and 6 p.m. on May 21st, and Class 198 milked for the third time 6 a.m. on May 22nd. The weighing of the milks was undertaken by Major J. A. Garton, and the testing of the milks was carried out by Mr. W. H. Hopkins. Points were awarded on the scale laid down by the British Goat Society. In addition to Prizes offered by the Bath and West Society, a Challenge Certificate was given by the British Goat Society for the best Dual Purpose Goat, over two years, that had borne a kid and had entered in Class 197 as well as in an Inspection Class, on points gained in both Classes. The tables on pages 92-95 give the result of these Milking Classes and the winner of the Challenge Certificate.

The preparation of the tables and working out the results of Tests both for Milk and Goats was entirely carried out by Mr. G. N. Rawlence with the assistance of Messrs. J. Hall and Shallcross, members of his staff at Salisbury. I am very much indebted to these gentlemen for their valuable assistance.

I also desire to thank Miss Taylor, the Dairy Staff, Mr. Read and his assistant for the great help given me by them.

This was the first time that Major J. A. Garton acted as Dairy Steward, and fully justified his appointment.

The work done by Messrs. Lister's foreman was most satisfactory, and I further desire to thank the Somerset and North Dorset Milk Recording Association for having again so kindly lent us the services of their Recorder, Mr. W. H. Hopkins and his plant free of expense, except the actual out of pocket costs. I must also thank the Wilts United Dairy Co., for their very kind loan of milk churns, also free of cost.

MILK TESTS.

No.	Exhibitor and Cow.	Breed.	Date of Birth.	Date of last Calf.	No. of days in Milk
CLASS 145—Jersey, Guernsey & Dexter.					
495	Lady Hervey-Bathurst, "Maiden Blonde 2nd"	Jersey	27/10/22	23/3/31	59
548	H. J. Pilbrow, "Engen Gentle 4th"	Guernsey	11/12/24	6/2/31	104
551	Capt. L. R. Wand, "Abbot's Miss Maggie"	Guernsey	30/6/25	27/3/31	55
562	E. H. Rose, "May of St. Catherine"	Guernsey	17/8/28	13/3/31	69
616	Mrs. C. M. L. Calvert, "Barrow Bec 4th"	Dexter	19/6/19	19/1/31	122
619	A. J. Creed, "Wightwick Dolly 2nd"	Dexter	1/6/24	16/4/31	35
620	Mrs. Leatham, "Bagendon Emerald 3rd"	Dexter	12/1/22	28/2/31	82
628	Mrs. Lionel Corbett, "Stonehurst Patricians Heliotrope"	Jersey	22/10/25	21/12/30	151
629	Capt. & Mrs. F. B. Imbert-Terry, "Blue Hayes Bannock"	Jersey	19/8/22	30/3/31	52
630	Capt. & Mrs. F. B. Imbert-Terry, "Blue Hayes Kiltie"	Jersey	25/1/19	12/3/31	70
631	Capt. A. Harold Stocker, "Whittlebury Viola"	Guernsey	15/5/25	5/5/31	16
632	Sir G. Stanley White, Bt., "Rosebay of Mayfield 4th"	Jersey	20/6/21	21/2/31	89
CLASS 146—Any other Breed.					
320	F. S. Francis, "Duntish Lee"	Dairy Shorth'rn	23/11/20	28/3/31	54
321	Major R. F. Fuller, "Chalfield Rose 15th"	Dairy Shorth'rn	14/4/27	13/4/31	38
322	Major R. F. Fuller, "Chalfield Valentine"	Dairy Shorth'rn	1/10/20	22/4/31	29
330	Capt. D. M. Wills, "Bessborough Maiden 3rd"	Dairy Shorth'rn	29/9/24	25/2/31	85
385	A. Allen, "Glen Nara"	B.Friesian	2/1/23	7/3/31	75
387	E. B. Hall, "Hache Awry"	B.Friesian	30/11/23	23/2/31	87
441	Earl of Radnor, "Longford Bloom"	Red Poll	23/1/24	7/4/31	44
467	W. B. Dronsfield, "High Tarbeg Dot 2nd"	Ayrshire	14/3/24	28/4/31	23
469	R. B. Taylor & Sons, "Waterside Kirsty"	Ayrshire	-/12/24	25/3/31	57
633	J. R. Upson, "Macknade Desturgy"	B.Friesian	9/11/20	18/3/31	64
634	Piddington (Northants) Estates Ltd., "Quinton Carrie"	B.Friesian	28/11/22	30/4/31	21
635	W. R. Withers, "Bella"	Shorth'rn	—	28/4/31	23

Champion Prize. No. 469.

" " Reserve. No. 387.

Dexter Society's Bertodano Challenge Cup. No. 616.

Reserve. No. 619.

Ayrshire Society's "Special Prize." No. 469.

" " " " Reserve No. 467.

MILK TESTS.

Yield of Milk.				Butter Fat.			Points.			Total.	Award.
1st Milk-ing.	2nd Milk-ing.	3rd Milk-ing.	Total.	1st Milk-ing.	2nd Milk-ing.	3rd Milk-ing.	Lacta-tion.	Milk.	B.F.		
lbs ozs	lbs ozs	lbs ozs	lbs ozs								
27 8	24 4	..	51 12	3.3	4.8	..	1.9	51.75	17.30	70.95	H.C.
15 12	15 0	15 8	46 4	4.6	5.4	4.5	6.4	46.25	28.15	80.80	Second
36 4	30 0	..	66 4	2.5	4.4	..	1.5	66.25	7.96	75.71	Reserve
19 0	14 12	..	33 12	4.3	6.4	..	2.9	33.75	24.95	61.60	C.
16 4	13 8	..	29 12	2.8	5.0	..	8.2	29.75	6.25	44.20	
16 0	11 12	..	27 12	3.5	4.5	..	nil	27.75	8.54	36.29	
13 8	11 8	..	25 0	3.0	3.9	..	4.2	25.00	3.45	32.65	
21 12	15 0	..	36 12	4.1	6.4	..	11.1	36.75	24.97	72.82	H.C.
19 4	16 4	15 4	50 12	4.2	4.8	4.4	1.2	50.75	24.57	76.52	Third.
16 12	12 4	10 12	39 12	4.9	6.5	5.0	3.0	39.75	32.07	74.82	H.C.
17 4	17 0	18 8	52 12	4.4	5.0	4.7	nil	52.75	29.86	82.61	First
20 4	14 0	..	34 4	4.4	5.7	..	4.9	34.25	22.05	61.20	C.
35 4	26 4	..	61 8	2.7	3.8	..	1.4	61.50	3.48	66.38	C.
21 8	21 12	22 8	65 12	2.9	2.7	2.4	nil	65.75	—7.40	58.35	Fat below Standard.
17 8	18 8	17 4	53 4	3.8	4.2	4.3	nil	53.25	19.54	72.79	Reserve.
31 0	23 0	..	54 0	3.1	4.3	..	4.5	54.00	11.00	69.50	C.
19 4	20 0	19 0	58 4	3.3	3.6	3.3	3.5	58.25	7.85	69.60	C.
25 8	24 12	24 8	74 12	2.9	3.3	3.3	4.7	74.75	4.07	83.52	Second.
29 4	28 0	26 4	83 8	2.7	3.1	2.8	0.4	83.50	—3.74	80.16	Fat below Standard.
43 8	29 0	..	72 8	2.3	4.7	..	nil	72.50	6.28	78.78	Third.
23 4	19 4	19 12	62 4	4.1	4.7	4.2	1.7	62.25	27.33	91.28	First.
26 0	24 12	24 0	74 12	2.5	3.0	2.9	2.4	74.75	—5.13	72.02	Fat below Standard.
24 0	21 12	22 0	67 12	2.6	2.8	2.6	nil	67.75	—7.58	60.17	Fat below Standard.
25 8	20 4	..	45 12	3.1	4.2	..	nil	45.75	8.95	54.70	

BUTTER TESTS.

PARTICULARS OF COWS TESTED, YIELDS OF MILK AND BUTTER, AWARDS, ETC.

No.	Exhibitor and Cow.	Breed.	Date of Birth.	Date of Last Calf.
CLASS 147.				
321	Major R. F. Fuller, "Chalfield Rose 15th"	Dairy		
322	Major R. F. Fuller, "Chalfield Valentine" ..	Shorthorn	14/4/27	13/4/31
330	Capt. D. M. Wills, "Bessborough Maiden 3rd"	Dairy		
385	A. Allen, "Glen Nara"	Shorthorn	1/10/20	22/4/31
441	Earl of Radnor, "Longford Bloom" ..	Dairy		
495	Lady Hervey-Bathurst, "Maiden Blonde 2nd"	Shorthorn	29/9/24	25/2/31
497	H. Leyborne Popham, "Galen" .. .	B. Friesian	2/1/23	7/3/31
548	H. J. Pilbrow, "Engen Gentle 4th" ..	Red Poll	23/1/24	7/4/31
551	Capt. L. R. Wand, "Abbot's Miss Maggie"	Jersey	27/10/22	23/3/31
555	Lt.-Col. W. O. Gibbs, "Sarkie's Jane of Dixcard"	Jersey	4/10/21	3/4/31
628	Mrs. Lionel Corbett, "Stonehurst Patrician's Heliotrope"	Guernsey	11/12/24	6/2/31
629	Capt. & Mrs. F. B. Imbert-Terry, "Blue Hayes Bannock"	Guernsey	30/6/25	27/3/31
630	Capt. & Mrs. F. B. Imbert-Terry, "Blue Hayes Kiltie"	Guernsey	8/7/28	17/11/30
631	Capt. A. Harold Stocker, "Whittlebury Viola"	Jersey	22/10/25	21/12/30
632	Sir G. Stanley White, Bt., "Rosebay of Mayfield 4th"	Jersey	19/8/22	30/3/31
633	J. R. Upson, "Macknade Desturgy" ..	Jersey	25/1/19	12/3/31
634	Piddington (Northants) Estates, Ltd., "Quinton Carrie"	Guernsey	15/5/25	5/5/31
636	Hon. Mrs. Esmé Smyth, "Prudence" ..	Jersey	20/8/21	21/2/31
		Friesian	9/11/20	18/3/31
		Friesian	28/11/22	30/4/31
		Jersey	1/7/25	8/3/31

Guernsey Special Prize. No. 548.

" " " Reserve. No. 551.

BUTTER TESTS.

PARTICULARS OF COWS TESTED, YIELDS OF MILK AND BUTTER, AWARDS, ETC.

No. of days in Milk	Milk yield in 24 hours.		Butter yield.	Ratio viz. : lbs. Milk to lbs. Butter.	Points.			Award.	
					Lactation.	Butter.	Total.		
	lbs.	ozs.	lbs.	ozs.					
38	65	12	1	14	35.16	nil	30.00	30.00	C.M. C.M. First. Third.
29	53	4	2	0 $\frac{3}{4}$	26.28	nil	32.75	32.75	
85	54	0	1	10 $\frac{1}{2}$	32.73	4.5	26.50	31.00	
75	58	4	2	3 $\frac{1}{2}$	26.36	3.5	35.50	39.00	
44	83	8	2	4 $\frac{1}{4}$	36.86	.4	36.25	36.65	
59	51	12	2	5	22.40	1.9	37.00	38.90	
48	43	4	2	4	19.22	.8	36.00	36.80	
104	46	4	2	8 $\frac{1}{4}$	18.39	6.4	40.25	46.65	
55	66	4	2	6	27.95	1.5	38.00	39.50	
185	27	8	1	5 $\frac{1}{2}$	20.52	12.0	21.50	33.50	Second.
151	36	12	1	14 $\frac{3}{4}$	19.19	11.1	30.75	41.85	
52	50	12	2	3 $\frac{3}{4}$	22.81	1.2	35.75	36.95	
70	39	12	2	1 $\frac{1}{4}$	19.16	3.0	33.25	36.25	C.M. Reserve.
16	52	12	2	7	21.71	nil	39.00	39.00	
89	34	4	1	14 $\frac{1}{2}$	18.03	4.9	30.50	35.40	C.M.
64	74	12	2	4	33.22	2.4	36.00	38.40	
21	67	12	1	14	36.23	nil	30.00	30.00	
74	30	4	1	7 $\frac{1}{4}$	20.93	3.4	23.25	26.65	

GOAT MILKING COMPETITION FOR QUALITY.

No.	Exhibitor and Goat.	Date of Last Kid.	No. of days in Milk.
CLASS 197.			
766	Mrs. Browell, "Feltham Fashion"	15/3/31	67
767	J. R. Egerton, "Malpas Meadowsweet"	3/3/31	79
768	J. R. Egerton, "Malpas Dawn"	11/4/31	40
769	Mrs. R. K. Morecom, "Cornish Cassandra"	6/3/31	76
770	Mrs. R. K. Morecom, "Cornish Reeve"	31/1/31	110
771	Mrs. R. K. Morecom, "Cornish Faith"	30/1/31	111
772	Mrs. R. K. Morecom, "Cornish Prophetess"	10/3/31	72
773	Miss Pope, "Layland Pearl"	11/5/31	10
774	Miss Pope, "Mostyn Mandoline"	7/3/31	75
775	Mrs. M. J. Rutter, "Raydon Aerial"	21/2/31	89
776	Miss E. Skidmore, "Heddon Shake"	11/3/31	71
777	Miss E. Skidmore, "Heddon Sophia"	6/4/31	45
778	Miss V. Walton, "Murrystone Odelle"	29/3/31	53
779	Miss V. Walton, "Feltham Fairy"	10/4/31	41
780	Mrs. Browell, "Cobalt Caprice"	12/3/31	70
781	Mrs. R. K. Morecom, "Cornish Maiden"	16/1/31	125
782	Mrs. R. K. Morecom, "Cornish Fondant"	22/2/31	88
785	Miss E. Skidmore, "Heddon Saltecellar"	28/3/31	54
786	Miss V. Walton, "Highland Grisette"	11/4/31	40
787	Mrs. R. Wethered, "Didgemere Delgada"	12/4/31	39
804	Mrs. L. J. Marshall, "Highland Divinette"	7/4/31	44
805	Mrs. L. J. Marshall, "Highland Twink"	22/4/31	29
806	Mrs. R. K. Morecom, "Cornish Puritan"	17/3/31	65
807	Mrs. R. K. Morecom, "Cornish Sorceress"	27/1/31	114
808	Mrs. R. Wethered, "Hareapple Skylark"	10/2/31	100

Dewar Challenge Trophy : No. 773.*Dual Purpose Challenge Certificate* : No. 773.*Reserve* : No. 780.*Reserve* : No. 775.

GOAT MILKING COMPETITION FOR QUALITY.

Yield of Milk.			Butter Fat.		Points.				Award.
a.m.	p.m.	Total.	% a.m.	% p.m.	Milk	Lacta- tion.	Butter Fat.	Total.	
lbs. ozs.	lbs. ozs.	lbs. ozs.							
5 0	4 1	9 1	3.9	4.8	9.06	.4	7.88	17.34	First.
4 3	4 1	8 4	4.3	4.3	8.25	.6	7.09	15.94	
6 7	5 14	12 5	4.5	4.3	12.31	nil	10.83	23.14	
4 13	4 9	9 6	4.4	4.8	9.37	.6	8.62	18.59	
4 11	4 2	8 13	4.1	5.0	8.81	1.1	8.02	17.93	
4 8	3 15	8 7	3.7	3.8	8.43	1.1	6.32	15.85	
4 7	4 2	8 9	5.2	4.9	8.56	.5	8.65	17.71	
6 9	6 2	12 11	6.0	5.4	12.68	nil	14.46	27.14	
6 7	5 7	11 14	3.9	5.3	11.87	.5	10.92	23.29	
6 4	6 1	12 5	4.2	4.7	12.31	.8	10.96	24.07	Reserve.
6 4	5 15	12 3	2.6	2.4	12.18	.5	6.09	*16.77	
4 14	4 14	9 12	3.5	3.4	9.75	nil	6.73	16.48	Second.
5 11	5 4	10 15	2.6	2.4	10.93	.2	5.46	*14.59	
5 7	5 5	10 12	3.4	3.4	10.75	nil	7.31	18.06	
7 0	6 5	13 5	4.4	4.3	13.31	.5	11.58	25.39	
5 13	5 8	11 5	4.4	4.3	11.31	1.4	9.84	22.55	
5 10	4 13	10 7	4.0	4.1	10.43	.8	8.45	19.68	
7 7	6 13	14 4	3.9	3.6	14.25	.2	10.69	25.14	Third.
5 3	5 6	10 9	3.2	3.5	10.56	nil	7.08	17.64	
5 3	5 0	10 3	4.2	4.5	10.18	nil	8.86	19.04	
4 2	3 15	8 1	5.1	5.2	8.06	nil	8.30	16.36	
6 5	6 2	12 7	4.0	3.7	12.43	nil	9.57	22.00	
4 10	3 13	8 7	3.9	4.2	8.43	.4	6.83	15.66	
5 0	4 12	9 12	4.3	4.6	9.75	1.2	8.68	19.63	
4 12	4 8	9 4	5.0	4.3	9.25	1.0	8.60	18.85	

* 2.00 deducted for deficiency in butter fat.

GOAT MILKING COMPETITION FOR QUANTITY.

No.	Exhibitor and Name of Goat.	Date of Last Kid.	No. of days in Milk.
	CLASS 198.		
766	Mrs. Browell, "Feltham Fashion"	15/3/31	67
767	J. R. Egerton, "Malpas Meadowsweet"	3/3/31	79
768	J. R. Egerton, Malpas Dawn "	11/4/31	40
769	Mrs. R. K. Morcom, "Cornish Cassandra"	6/3/31	76
770	Mrs. R. K. Morcom, "Cornish Reeve"	31/1/31	110
771	Mrs. R. K. Morcom, "Cornish Faith"	30/1/31	111
772	Mrs. R. K. Morcom, "Cornish Prophetess"	10/3/31	72
773	Miss Pope, "Layland Pearl"	11/5/31	10
774	Miss Pope, "Mostyn Mandoline"	7/3/31	75
775	Mrs. M. J. Rutter, "Raydon Aerial"	21/2/31	89
776	Miss E. Skidmore, "Heddon Shake"	11/3/31	71
777	Miss E. Skidmore, "Heddon Sophia"	6/4/31	45
778	Miss V. Walton, "Murrystone Odelle"	29/3/31	53
779	Miss V. Walton, "Feltham Fairy"	10/4/31	41
780	Mrs. Browell, "Cobalt Caprice"	12/3/31	70
781	Mrs. R. K. Morcom, "Cornish Maiden"	16/1/31	125
782	Mrs. R. K. Morcom, "Cornish Fondant"	22/2/31	88
785	Miss E. Skidmore, "Heddon Saltcellar"	28/3/31	54
786	Miss V. Walton, "Highland Grisette"	11/4/31	40
787	Mrs. R. Wethered, "Didgemere Delgada"	12/4/31	39
804	Mrs. L. J. Marshall, "Highland Divinette"	7/4/31	44
806	Mrs. R. K. Morcom, "Cornish Puritan"	17/3/31	65
807	Mrs. R. K. Morcom, "Cornish Sorceress"	27/1/31	114
808	Mrs. R. Wethered, "Hareapple Skylark"	10/2/31	100

GOAT MILKING COMPETITION FOR QUANTITY.

Yield of Milk.				Points.			Award.
a.m.	p.m.	a.m.	Total.	Milk.	Lacta- tion.	Total.	
lbs. ozs.	lbs. ozs.	lbs. ozs.	lbs. ozs.				
5 0	4 1	3 14	12 15	12.93	.4	13.33	Third.
4 3	4 1	4 3	12 7	12.43	.6	13.03	
6 7	5 14	6 3	18 8	18.50	nil	18.50	
4 13	4 9	4 12	14 2	14.12	.6	14.72	
4 11	4 2	4 9	13 6	13.37	1.1	14.47	
4 8	3 15	4 5	12 12	12.75	1.1	13.85	
4 7	4 2	4 6	12 15	12.93	.5	13.43	
6 9	6 2	6 8	19 3	19.18	nil	19.18	
6 7	5 7	5 4	17 2	17.12	.5	17.62	
6 4	6 1	5 15	18 4	18.25	.8	19.05	Reserve.
6 4	5 15	6 5	18 8	18.50	.5	19.00	
4 14	4 14	4 13	14 9	14.56	nil	14.56	Second.
5 11	5 4	5 3	16 2	16.12	.2	16.32	
5 7	5 5	5 5	16 1	16.06	nil	16.06	
7 0	6 5	5 10	18 15	18.93	.5	19.43	
5 13	5 8	5 8	16 13	16.81	1.4	18.21	
5 10	4 13	5 1	15 8	15.50	.8	16.30	
7 7	6 13	7 4	21 8	21.50	.2	21.70	First.
5 3	5 6	5 1	15 10	15.62	nil	15.62	
5 3	5 0	5 9	15 12	15.75	nil	15.75	
4 2	3 15	4 0	12 1	12.06	nil	12.06	
4 10	3 13	4 4	12 11	12.68	.4	13.08	
5 0	4 12	4 11	14 7	14.43	1.2	15.63	
4 12	4 8	4 12	14 0	14.00	1.0	15.00	

XII.—AGRICULTURAL EDUCATION AND RESEARCH AND RURAL EDUCATION AND SCHOOL CRAFTS.

By H. M. Cundall and A. L. Hobhouse, Stewards.

Owing to the activity displayed by the Authorities of the Bristol University, the Royal Agricultural College, Cirencester, and by the County Councils of Bristol, Somerset and Gloucester, the various exhibits in this Department of the Bristol Show were of exceptional interest. In addition the Ministry of Agriculture and Fisheries gave a demonstration of the National Mark Scheme for the better standardisation and marketing of home Agricultural produce. It also included in its pavilion a comprehensive cider exhibit arranged by the Long Ashton Station.

AGRICULTURAL EDUCATION AND RESEARCH.

The exhibit was staged jointly by the University of Bristol (Department of Agriculture and Horticulture), the Royal Agricultural College, Cirencester, and the Agricultural Departments of the County Councils of Gloucester and Somerset.

The University of Bristol's Exhibit comprised material from the Agricultural Advisory Department and the Research Station, Long Ashton. (National Fruit and Cider Institute.)

UNIVERSITY OF BRISTOL AGRICULTURAL ADVISORY DEPARTMENT.

Agriculture and Agricultural Chemistry.

The exhibit demonstrated the differences in nutritive value between four qualities of hay, namely, heated, poor, medium and good. The relative constituents, illustrated by bottled samples derived from chemical analysis, accompanied the actual specimens.

Exhibits from Longleat Park showed the feeding values of good and poor grass as compared with linseed cake. Results demonstrated that intensive grazing methods give grass of higher food value, since young grass is more nutritious than old and coarse.

Economics.

An exhibit in the Economics section was a demonstration of the balance between farm costs and sales. This was illustrated by

means of a pair of scales on which the expenditure on the farm was weighed against the income. By this means it was possible to compare the relative economies of extensive and intensive systems of farming.

Charts showing the changes in certain crops and classes of live-stock in Somerset since 1870 bore silent witness to the way in which farmers have attempted to evade economic pressure of this period.

Veterinary Science.

A new branch of advisory work at Bristol is that in Veterinary Science. The type of problem being investigated was illustrated by photographs of actual diseased livestock. For example, Coccidiosis in birds is a disease which is becoming very serious and is causing considerable loss to the farming community in some districts. Bacillary White Diarrhoea disease is also of economic importance, and it is hoped that further facilities for blood testing purposes at Berkeley Square will permit of greater control over the spread of this disease.

Dairy Bacteriology.

Dairy Bacteriology is not confined entirely to the question of clean milk production, and the exhibit illustrated some of the more common causes of taints or faults in milk and dairy products. These included the oily taint due to contamination with minute amounts of copper, which catalyse the oxidisation of the fat with the production of the oily flavour. The most fruitful source of the copper is the milk cooler from which the tinning has become worn, and this taint will develop most frequently in cold weather. Other troubles illustrated were tallowiness due to the action of sunlight, ropy milk, and taints due to foods and weeds consumed.

In addition, there was an exhibit to illustrate the significance of bacillus coli and a collection of cultures of bacteria, yeasts and moulds connected with the dairy industry.

LONG ASHTON RESEARCH STATION.

Fruit Quality and Fruit Storage Problems.

The factors influencing the quality and storage properties of apples were illustrated by specimens of fruit, photographs and charts. The effect of rootstock was seen to be complicated by soil and other environmental factors. Different varieties of apples showed marked differences in storage properties—Worcesters

showed shrivelling, Newtons scald, while Bramleys and King of the Pippins suffered internal breakdown in low temperature store. Fruit from young trees showed a high content of both sugars and nitrogen and kept very badly. The position of the fruit in the cluster affected its shape—the terminal apple being elongated with a pronounced beak.

Among the soil properties affecting fruit quality were moisture, manuring and cultivation. The complex effects of potassium deficiency in both ordinary and cold stores fruit were illustrated, and the soft, green, poorly-keeping fruits, resulting from excess of nitrogen, were on view.

Orchard practices such as pruning, bark ringing and fruit thinning gave effects which were exemplified by charts and samples of fruit, showing the changes in colour and keeping qualities that can be produced by these practices. Early picking was shown to lead to poor quality, and the development of scald in storage.

An exhibit of trees growing in sand, watered with nutrient solutions, showed the effect on tree growth and blossoming produced by deficiencies of the mineral elements nitrogen, potassium, magnesium, phosphorous and calcium respectively.

Plant Diseases and their Control.

In the exhibit of plant diseases, a special feature was made of willow rust, and of important vegetable diseases newly reported in this country. On an adjoining plot of standard and bush trees in grass, spraying demonstrations were given at frequent intervals. The use of the power sprayer, headland pump, knapsack sprayer and hand duster was shown, also the mixing of sprays for the control of various pests and diseases.

Fruit Preservation.

A comprehensive exhibit illustrated the domestic preservation of fruits and vegetables.

Willows.

In the exhibit of willows and willow products, the whole process of cricket bat manufacture was demonstrated, and other uses for willow timber were shown. Growers of basket willows were interested in a peeling machine that was being worked, and in a show of new varieties raised at Long Ashton.

ROYAL AGRICULTURAL COLLEGE, CIRENCESTER.

Poultry.

The exhibit illustrated the Pedigree Breeding scheme now in operation at the Royal Agricultural College for the second season. Typical birds were shown and, in addition, the methods of recording and marking stock. There was also a loaned exhibit of specimens illustrating various serious diseases of poultry.

Biology.

A comprehensive collection of about 30 kinds of plants poisonous to livestock was exhibited.

General.

Turf specimens were shown to illustrate the effects of manuring and management on permanent grass land. There was also a collection of six local strains of common sainfoin from plots sown in 1928.

A brief descriptive reference was made to a scheme of enquiry into Sheep Farming, conducted by the Vice-Principal of the Royal Agricultural College, acting as investigator for the Experiments Committee of the Bath and West Society. The exhibit illustrated the great preponderance of cross breeding over pure breeding in the south-west counties.

GLOUCESTERSHIRE AGRICULTURAL EDUCATION SUB-COMMITTEE.

Dairying.

A comprehensive exhibit, showing the food value and cost of milk as compared with other articles of food, aimed to advise and encourage everyone to drink more milk, and comparison was made with regard to the quantity of milk consumed per head of the population in various countries. Methods adopted for the production of clean milk were demonstrated.

An exhibit of cheese, made by Gloucestershire pupils, included double and single Gloucester, Cotswold, Cheddar and soft cheeses.

Agriculture.

An exhibit showing experimental work in the eradication of the Warble Fly was illustrated. A map of the County showing areas treated, a chart giving the count taken at the time of dressing, and specimens of damaged leather and Warble Grubs were shown.

The result of recent experiments in the inoculation of lucerne at Upper Slaughter, Bourton-on-the-Water, was illustrated by photographs and figures. Pots showing treated and untreated lucerne plants were on view, as well as tubes of culture. The method for treatment of the seed was given.

Varieties of Red Clover grown on the Experimental Plots in the County were exhibited.

Poultry.

A special exhibit of dressed poultry illustrated the method to be adopted for the production, preparation and marketing of dead poultry in an A.1. condition to command the highest prices.

The Battery System.—There was an exhibit of full-size working models for the intensive rearing of poultry as used by the Agricultural Education Sub-Committee in experiments, including battery brooding, battery rearing and feeding and laying battery. The pullets, in the laying battery, were hatched out at the World Poultry Congress in July, 1930, and have never been out of a battery brooder. They have laid 100 eggs each to date.

SOMERSET FARM INSTITUTE.

Agriculture.

An exhibit on crops illustrated the importance of selecting the right variety and strain.

The working of the Fertilizer and Feeding Stuffs Act was demonstrated, showing how the farmer is protected from fraud when buying manures and foods.

Figures were given showing the results of the experimental work being carried out in the counties of Somerset and Gloucester on the control of the Warble Fly in cattle.

In another exhibit the necessity of rapid weight gains in the production of early fat lambs was emphasised.

Finger and toe disease in swedes can be controlled, as was effectively shown by actual specimen roots from county experimental plots.

Specimen turves showing the results of manurial treatment of grass land were displayed.

The Dairy Exhibit demonstrated, among other things, the difference between satisfactory and unsatisfactory dairy equip-

ment; types of cheese moulds, cheese grey, etc., were shown to impress the value of attention to detail. Acid tests are of importance to cheese makers, and the colour is sometimes carelessly judged. The exhibit, therefore, showing a good and a bad test was of especial interest. Different varieties of cheese were shown: Cheddar, Caerphilly, Cheshire, Derby, Pont l'Eveque, Coulommier and Smallholder.

The results of one experiment showed that by careful press work an attractive finish could be obtained on a Cheddar, while cracked coats will result if press work is inefficiently performed. Another experiment demonstrated clearly that the effect of using milk low in butter fat for the making of Cheddar cheese results in a decreased yield of an inferior quality product. The idea of removing cream from the vat in the morning was proved to be erroneous.

Farm Orcharding.

A coloured soil diagram of Somerset, indicating *light*, *medium* and *heavy* types of soils in relating to cider orchards, was exhibited. Specimens of cider variety apples were arranged in groups to suit the three types of soils, selected in favour of healthiness of the trees, cropping, vintage quality and season. By this grouping, intending planters will have a guide to get trees to grow successfully in their districts, and ensure that a good blend of cider will result. Photographs of each variety were grouped and linked to the soil districts of the county.

Kingston Black Survey.

This survey is being carried out to ascertain the conditions under which Kingston Black will grow most successfully. A map of the survey was shown, together with photographs of trees of Kingston Blacks, to show the types of trees observed in the survey.

Fruit Tree Nursery. (Fruit Tree enclosure.)

Specimens of trees in various stages from the stock to the planting tree were shown, together with special selected stocks for farm orchard standards.

Poultry.

The Centre exhibit staged depicted incubation, including a small incubator and many photographs were displayed, showing the development of the Embryo for the whole of the 21 days' hatching period. There were also two specimens in preservative,

one showing the actual Embryo and its development at various stages ; the other a hen with all her egg organs exposed for inspection showing the Ovary, Oviduct, and egg ready to be laid. Yet another interesting exhibit was a skeleton of a fowl. There were also various specimens of diseases to which poultry are prone.

The Cannington Farm Institute Poultry Section was represented by some interesting photographs of the students at their training. Samples of various foodstuffs were also staged.

Another bench was that displaying the Somerset County Egg Laying Trial graph chart, showing the improvement in egg production (especially during the winter months) for the past 5 years. Figures taken from the chart showed that 200 hens produced 10,126 eggs in 48 weeks in the year 1930, while the figures for the year 1926 were only 5,965. The Championship Pen of White Wyandottes for the current year produced 668 eggs during 6 winter months. Other features were samples of eggs grades A, B, C and D as graded at the Trials for the purpose of awarding points.

The Approved Poultry Breeding Station Scheme in operation was also represented and some 30 dozen specimens of hatching eggs, bearing their official station stamp number were displayed.

OUTSIDE EXHIBITS.

Agriculture.

An extensive exhibit of Grassland Turves showing the effects of different manurial and cultural treatment were displayed. In addition, turves showing suitable seeds mixtures for temporary and permanent leys were on view. Varieties of red clover and sanfoin were illustrated by means of specimens in pots.

Horticulture.

A demonstration of spraying was given at frequent intervals on the Horticultural Plot, which was planted with standard and bush trees. Also specimen trees in various stages of growth were shown, illustrating the special stocks that should be selected for farm orcharding.

THE MINISTRY OF AGRICULTURE AND FISHERIES' PAVILION.

A notable feature of the educational side of the Bath and West Show at Bristol was the Ministry of Agriculture and Fisheries' Pavilion, which also housed a comprehensive cider exhibit arranged

by the Long Ashton Research Station. The Ministry's own exhibit was entirely devoted to a demonstration of the National Mark scheme for the better standardisation and marketing of home agricultural produce. Commodities which are already subject to the scheme were displayed in a National Mark Hall arranged in an attractive manner in separate windows, and included beef, table poultry, eggs, flour, malt flour and malt extract, apples and pears, strawberries, cherries, tomatoes and cucumbers, canned fruits and vegetables, and cider. Each window had its own descriptive matter, and a tour of the Hall gave the visitor an excellent idea of the scope of the scheme, the grade designations for each product, and the standard packages adopted for certain of the commodities.

A daylight cinema gave more detailed information, in a way which could not fail to make an impression, by means of films illustrating the production, and the packing under the National Mark, of eggs, strawberries, tomatoes, canned peas, canned raspberries and cider, together with statistics relating to the progress of the National Mark movement. This innovation in the Ministry's Exhibit proved a great attraction and a valuable medium for propaganda, both to farmers and to the consuming public.

Postal boards hung around the National Mark Hall gave information as to the progress of the various National Mark schemes, some of them being in graphical form. These showed, for example, that there has been a steady rise in the output of National Mark eggs, and that during the year 1930 the 140 packing stations operating under the scheme dealt with no less than 220 million eggs, and that in the first four months of the current year the output of packing stations had increased by more than 40 per cent. compared with the corresponding period of 1930. Similarly, as regards National Mark beef, figures were given indicating that no less than 236,000 sides of beef were graded and marked in 1930 in the two areas of London and Birmingham, where grading was then in operation.

Other posters described in telling language some of the particular features of the National Mark schemes for certain commodities, with the object of demonstrating the advantages which would accrue both to producers and to the public by supporting the National Mark movement.

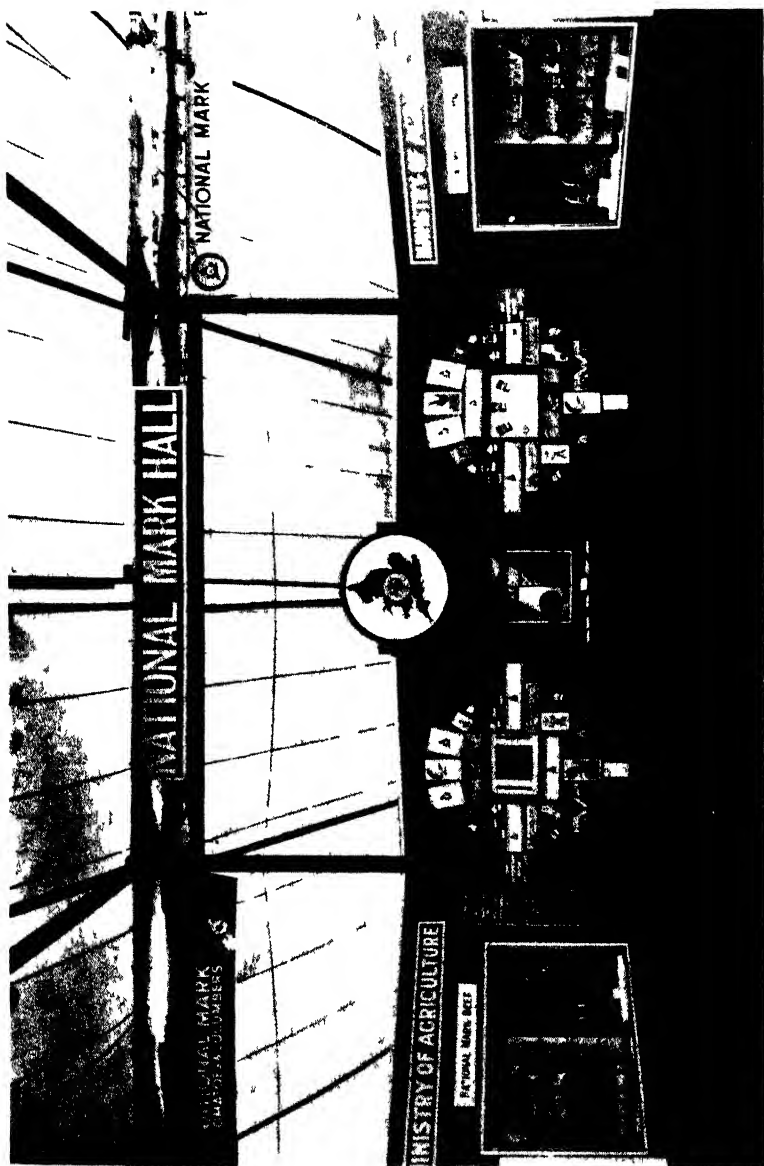
As a further means of bringing home the message of the National Mark, the Ministry's Pavilion was decorated with large and small

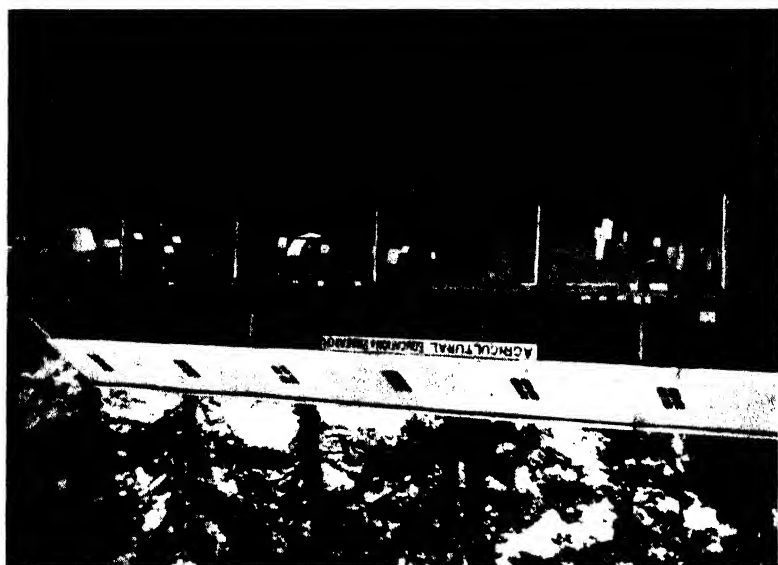
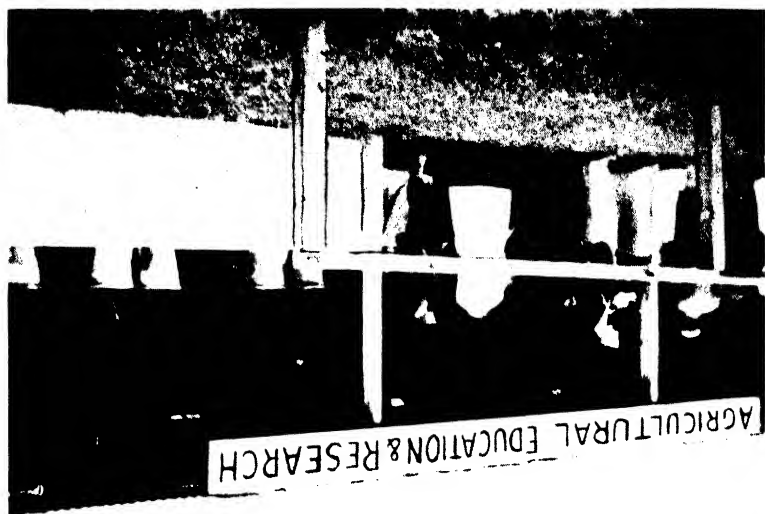
pictorial posters, while two illuminated Textophote Machines also drew attention to the striking display material which is available to retailers for assisting in the advertisement of National Mark goods in their shops.

In a separate section of the Ministry's Pavilion were staged demonstrations of two suggested National Mark schemes, for cheese and honey, respectively. Results of investigations into the marketing of these two products had already been published in the well-known series of "Orange" Books—Economic Series No. 22, Marketing of Dairy Produce, Part I—Cheese, and Economic Series No. 28, Marketing of Honey and Beeswax—and the object of the demonstrations was to illustrate the two National Mark schemes suggested in these reports. The cheese exhibit comprised a representative display of English cheese as well as specimens of a number of varieties of Dominion and Foreign graded cheese, and showed a suitable method of applying the National Mark to cheese, for which two grade designations, namely, "Selected" and "Selected Mature" were adopted as a basis for discussion and demonstration. The tentative grade designations for honey were "Select" for extracted honey, with sub-classes for three colours of honey, and "Select (Section)" for comb honey in sections. Standard containers and packages for National Mark honey were also displayed.

In the same section of the Pavilion practical demonstrations to illustrate the excellent results obtainable by the use in cooking of National Mark flour were given at regular intervals, and proved a considerable attraction, especially to women visitors.

The Whole exhibit was impressive, and it was therefore with some surprise that the writer, in conversation with the Ministry's representative in attendance, learned that, while considerable progress is being made, a greater measure of support is needed from producers as a whole. In fact, the demand for most of the National Mark products exceeds the supply, indicating that distributors and consumers are more alive to the possibilities of the scheme. On the other hand, the two latest commodity schemes, for canned fruits and vegetables and cider, respectively, have secured the support of the majority of those engaged in their manufacture. Both of these schemes are operated mainly by "manufacturer packers," who are more accustomed to trade-marks, and have a greater appreciation of the value of a national brand, than primary producers.





There can be no question, however, that the National Mark scheme is having a profound effect upon the methods of marketing of the produce of our farmlands and orchards, and enabling the natural advantages of freshness and flavour to have full play in competition with well graded and attractively packed imported supplies. Furthermore, judicious advertising is stimulating a public demand for standard National Mark products, and creating a definite bias towards home produce.

The Scheme will succeed through its own momentum. Each commodity brought within its scope adds to the total effect, and increases public knowledge of the National Mark—what it is and what it stands for. Farmers and growers, by training and by instinct, are intensely individualistic, but signs are not wanting that both as producers and consumers they are realising more fully the advantages of active association with this truly National movement, which provides for their output a trade-mark, which to distributor and consumer is the symbol of home produce of dependable quality.

RURAL EDUCATION AND SCHOOL CRAFTS.

The Somerset County Education Committee.—A thoroughly representative display of educational handwork, mostly from the elementary schools in the county, was staged by the Committee. It included exhibits of practical work relating to Handicraft, Applied Art, Practical Science, Agriculture, Horticulture, Nature Study, Geography, History, Domestic Subjects, and Home Crafts.

The great variety and excellent workmanship of the articles made by the children were indicative of the marked development of practical means of education which has been made in elementary schools during recent years.

A conspicuous feature of the exhibit was the section relating to Agriculture and Horticulture. This included an exhibit of Dairywork, showing how the children are taught to milk, to make butter and cheese, and to secure clean milk and ideal working conditions in a dairy. An interesting map showed that this instruction has now been given in nearly all parts of the county, and also where ex-scholars who have received the instruction are now engaged in dairying or other farm work in their districts.

Photographs, compositions, drawings, etc., relating to class visits to selected farms, were received from Blagdon Council and

The exhibits covered the whole range of School Crafts from the simplest forms in paper and cardboard to the finished articles of furniture, such as a grandfather clock.

They were grouped in accordance with the following plan :—

- (a) A complete scheme of Handwork by an Elementary Boys' School, equipped with its own workshop. (Ages of boys : 7 to 14 years.)
- (b) A scheme of Needlework illustrated by various Elementary Girls' Schools, and showing :—Plain Sewing, Cutting out, Mending, Knitting, Embroidery from original designs. (Ages of girls : 7 to 14 years.)
- (c) Elementary Schools' (Girls') Handwork :—Leatherwork, Raffia Work, Toy-making, Stencilling, Book-binding, Basketry, Upholstery, etc.
- (d) Elementary Schools' (Boys') Handwork :—Woodwork, Metalwork, Repoussé Work, Leatherwork, Poster Design, Lettering, Book-binding, Models for the teaching of Geography, Science, etc.
- (e) The work of the Special Schools (Physically and Mentally Deficient ; Partially Blind and Partially Deaf) :—Work similar to that of the Elementary Schools, but including various repetitive processes such as, Rug-making, Chair-seating, etc.
- (f) The work of the Central Schools :—Woodwork, Metalwork, Lino-cutting, Design as applied to Needlework and other crafts. (Ages of children : 11 to 15 years).
- (g) The work of the Temple Junior Technical Institute. (Ages of boys : 13 to 16 years) :—Pattern-making, Metalwork, Woodwork, Watch and Clock parts.
- (h) The work of the Evening Institutes. This exhibit was confined to specimens of Needlecraft, Embroidery, Leatherwork and Photography ; it was in no sense representative of the work of the institutes.

DISPLAY OF PHYSICAL TRAINING.

The City and County of Bristol Education Department, which may be considered to be one of the pioneers in Physical Training of Children in Schools under official authority, presented an excellent

demonstration of the modern methods of physical Education in the Horse Ring. Upwards of two thousand, five hundred children, in attendance at the Schools in the Bedminster Area, were present, and gave interesting performances in physical exercises, dances and games.

The statement made by the Chairman of the Education Committee can be thoroughly endorsed, that great credit was due to the organisers and the teachers when it is realised the display was carried through on an unmarked area and without rehearsal.

RURAL INDUSTRIES.

The Somerset Rural Community Council arranged an exhibition of varied examples of the work of Somerset craftsmen. The largest exhibit was that of ornamental wrought ironwork and some other fine pieces of work were shown. Basketry and woodwork were displayed alongside brightly coloured hand-thrown pottery. In the open there were exhibits of the wheelwright, hurdle and sparmaker, teak and rustic garden furniture maker, and the lead-worker; Field and garden gates and barrows also were shown.

There were three working exhibits, which lent an air of activity, a weaver, working a handloom; a craftsman, making wattle hurdles; and a spinner of raw Angora Rabbit wool.

The Somerset Federation of Women's Institutes displayed linen embroidery, handmade gloves suitable of Country wear, rugs of three kinds, (1) made from Thrums wool, i.e., thrown out from carpet weaving; (2) pile rugs; and (3) those made from odds and ends of waste material; also chairs with string seating. Practical demonstrations of these Rural Industries were given daily at the Show.

Thanks are due to the various local Authorities, Colleges and Associations, which contributed so successfully in this section of the Society's Show, and also to the Officials of the various bodies for their willing co-operation in arranging the exhibits, and for their assistance towards the compilation of the report.

XIII.—REPORT ON THE FORESTRY EXHIBITION AT BRISTOL.

By Hon. J. W. Best, O.B.E., Steward.

At each year's Show one naturally looks round the exhibits to compare them with those of previous years, and to gauge the Society's efforts for the advancement of the science of forestry in its application to estate conditions. Thanks to the generous support which the forestry branch of the Show received, the collection of exhibits at Bristol was as interesting and instructive as any that the Society has staged in the last few years. The thanks of the Society are due in special measure to Mr. Napier through whose influence the resources of the Ashton Court Estate, not only of material exhibits but of skilled labour, were put at our disposal. This assistance, coupled with the exhibits of Lt.-Col. Sir C. Miles and the Long Ashton Research Institute, added those extra exhibits which fill in gaps and supply that special interest which local exhibitors only can produce to complete a good show.

The space inside the Pavilion is of necessity of fixed dimensions. That required by exhibits is not, and although by their nature it is possible within reasonable limits to expand and contract the space asked for, it can only be done by the cheerful co-operation of exhibitors with the Stewards responsible for the spacing. At Bristol, owing to the large amount of space asked for, there was more difficulty than usual in meeting the requirements of exhibitors without unduly splitting the classes. At the last moment we were offered an excellent willow exhibit from Long Ashton which added considerably to the interest of the Pavilion. Owing to the goodwill of other exhibitors, whose space had already been reduced below their demands, it was possible to accommodate this entry.

The actual number of exhibits in the Classes was 40, compared with 48 in the previous year at Torquay; the reduction in numbers was, however, well made up by the size and quality of the entries. In addition there were some excellent displays of willows and willow-work, organized by Mr. Hutchinson, of the National Fruit and Cider Research Institute at Long Ashton. These included a series showing the growth of the bat willow (*Salix Alba Caerulea*), and the evolution of the cricket bat, a number of specimen willows in their various stages of growth up to the marketable conditions, as well as the display of a willow peeling machine at work, alongside the ordinary hand willow peeling outfit.

There were fewer entries in Class II (specimens of young coniferous timber) than in the previous year. It is hoped that more estates will be able to show in this class in future years. There are undoubtedly a great number of young coniferous plantations in the country which represent the efforts of estates to establish even aged plantations grown under well ordered silvicultural conditions. By the exhibition of specimen sections of selected trees from them it is possible to show the public that there is a great possibility for growing in these Islands as good specimens of coniferous timber as can be imported from abroad. It is true that most of these plantations are young, nevertheless their future is great, and an exhibition of what has been accomplished in the earlier stages of growth is an indication of what can be expected from the mature woods. Only one working plan was exhibited compared with five at Torquay, which was unfortunate. It is true that few estates have yet reached the stage where working plans are demanded, yet when schemes of planting or exploitation on a commercial scale are undertaken in any part of the globe a working plan has been found to be essential to a well ordered and economical plan of operations. A working plan represents silviculture as compared with arboriculture.

Class VII, for examples of creosoting or other methods of preservation, was particularly well supported, and Class VIII, for timber worked up for estate and other purposes, equally so. Both these classes are essentially practiced in showing how the best use can be made of home-grown timber.

Outside the Pavilion the two classes for gates attracted considerable attention, as did the class for wattle shelter hurdles.

The Silver Medal of the Royal English Arboricultural Society was awarded to Dartington Hall, Ltd. Other awards are shown elsewhere in this Journal.

Unfortunately it was not possible to hold any competition of craftsmen at work, as has been the case in recent shows. Such classes attract the public, and it is hoped that it will be possible to hold them in areas visited by the Society in future which are more suitable for these organizations.

The Society's thanks are due to Mr. R. Pearson, of the Princes Risborough Research Station, for the very great care with which he carried out the difficult task of judging the classes, and to His Grace The Duke of Beaufort for the equally difficult work of judging the hunting gates.

XIV.—THE EXHIBITION OF CIDER AT BRISTOL.

By E. W. Farwell, Steward.

The entries at the Bristol Exhibition in 1931 numbered 134 as compared with 142 at Torquay in 1930 and 99 at Swindon in 1929, the classes as usual being open to growers and makers. The Somerset County Agricultural Education Committee generously offered prizes for an additional class for cider made by Students receiving instruction provided by the Somerset County Council.

Mr. O. Grove, of the Research Station, Long Ashton, Bristol, was the Judge appointed by the Society, with Mr. Pickford, also of the Research Station, to assist him in making a preliminary selection. The thanks of the Society are due to them for the way they carried out their duties.

Selected samples were submitted to Dr. J. A. Voelcker, C.I.E., M.A., F.I.C., for analysis and particulars of these are set out in the accompanying table together with the specific gravity of the juice where supplied by the exhibitors. One sample had to be disqualified for containing preservatives contrary to the regulations of the Ministry of Health.

The following are the Judge's comments on the exhibits:—

Of the ciders exhibited at the Bristol Show it may be said in general that they were not of high quality. This was more or less expected after the bad season in 1930, which was distinguished by juices of exceptionally low specific gravity.

The general condition of the bottled ciders was very satisfactory with regard to clearness and effervescence.

Class 238, the novice class, was very variable, though fair on the whole. A few samples were of rather inferior quality, but there were at least half a dozen entries that reached a very acceptable standard.

Class 239, open to exhibitors whose main occupation is farming. Nearly half of the entries in this class were the same as in Class 238. With some exception the ciders were of quite good quality.

Class 240, for dry cider in cask. On the whole a fairly good class. The ciders were all somewhat "thin," due to the season.

Class 241, for dry cider in bottle. The exhibits in this class were similar in character to the ciders in Class 240. Flavours were as a rule clean and fairly pleasant.

Class 242, Open class for draught ciders, was quite fair, but most of the samples were somewhat lacking in "body."

Class 243, Open class for bottled cider, was rather variable with some very good ciders, and a large number of somewhat inferior samples.

Class 244, for bottled cider made previous to 1930, was not of high merit.

Class 245, for bottled cider made by a student who had received instruction in cider-making provided by the Somerset County Council. This class contained a number of samples of quite good quality, and only a few of inferior type.

RESULTS OF ANALYSES.

<i>No.</i>	<i>Sp. Gr.</i>	<i>Solids.</i>	<i>Percentage of Alcohol.</i>	<i>Acidity.</i>	<i>Sp. Gr. of Juice.</i>
2	1.022	6.15	1.48	.62	1.050
3	1.029	8.00	2.16	.62	—
4	1.026	7.40	2.57	.56	1.051
5	1.018	5.63	2.29	.50	1.050
8	1.031	8.63	2.29	.67	1.060
9	1.025	6.70	1.48	.47	1.051
11	1.030	7.75	.66	.48	1.044
13	1.027	7.83	2.92	.56	—
14	1.026	8.13	4.21	.58	1.058
16	1.013	4.87	4.14	.44	1.050
19	1.023	6.73	2.36	.44	1.042
22	1.023	7.20	4.29	.50	—
23	1.021	6.57	3.42	.48	—
26	1.016	5.70	4.65	.56	1.061
27	1.014	5.50	5.63	.70	1.058
29	1.016	5.20	3.20	.38	—
33	1.015	5.50	4.80	.70	1.054
34	1.015	5.25	3.78	.72	1.050
37	1.015	5.30	4.21	.55	1.058
38	1.014	5.15	4.29	.66	1.050
39	1.009	4.27	5.63	.62	—
42	1.015	5.47	5.03	.73	1.058
47	1.014	5.25	5.18	.71	1.057
50	1.028	7.97	2.78	.56	1.060
51	1.037	10.60	3.78	.87	—
52	1.030	8.95	4.14	.78	1.064
55	1.029	8.30	2.50	.84	1.054
58	1.026	8.35	4.73	.60	1.058
61	1.031	9.17	3.92	.67	1.065
62	1.029	8.37	2.99	.58	1.060
63	1.030	8.30	2.36	.64	1.058
68	1.032	9.20	2.99	.76	1.057
72	1.029	8.13	2.50	.70	1.050
75	1.033	9.50	3.42	.81	1.064
78	1.023	7.23	4.14	.60	—
81	1.023	6.85	3.13	.50	—
85	1.028	8.17	2.99	.72	1.057
87	1.027	8.00	3.06	.46	1.067
88	1.031	9.20	4.21	.60	—
92	1.025	7.73	4.07	.52	—
93	1.017	6.45	5.78	.53	1.067
95	1.026	8.25	4.80	.63	1.060
98	1.026	8.25	4.44	.56	1.058
99	1.031	9.43	4.29	.60	1.065
100	1.019	5.83	2.99	.43	1.055
103	1.032	9.15	2.85	.72	1.057
106	1.024	6.85	2.50	.45	—

XV.—ANNUAL REPORT ON THE SOCIETY'S GENERAL OPERATIONS.

By F. H. Storr.

The Annual General Meeting of Members was held on Friday, May 22nd, 1931, in the Show Yard, at Bristol. The President, His Grace the Duke of Beaufort, G.C.V.O., was in the chair, and there were present :—The Marquess of Bath, K.G., Mr. H. M. Cundall, I.S.O., F.S.A., Mr. C. M. F. Luttrell and Mr. H. B. Napier (Vice-Presidents), The Earl of Radnor, Sir F. B. Beauchamp, Bart., Sir F. W. D. Drummond, Sir S. Humphries, Sir W. O. E. Meade-King, Sir J. F. Shelley, Bart., Col. W. O. Gibbs, Lt.-Col. E. Lewis, Major A. H. Gibbs, Major V. T. Hill, Capt. W. Best, Messrs. G. Carleton, H. E. Dulcken, H. J. Kingwell L. Marsh, P. W. Petter, H. L. Popham, E. Pritchard, E. G. F. Walker and A. R. White, O.B.E.

The Minutes of the last Annual General Meeting were read and confirmed. On the motion of Mr. P. Petter, seconded by Capt. W. Best, it was unanimously resolved that the Right Hon. The Lord Digby, D.S.O., M.C., be elected President of the Society for the ensuing year. Mr. C. M. F. Luttrell proposed, Major A. H. Gibbs seconded, and it was adopted that His Grace the Duke of Beaufort, G.C.V.O., and the Rev. A. T. Boscawen be elected Vice-Presidents of the Society. It was proposed by Sir W. O. E. Meade-King, and seconded by Mr. H. E. Dulcken, that the gentlemen nominated by Council be elected Members of Council for the years 1931-33. The meeting adopted the resolution.

In proposing that the Annual Report, as presented by Council, be approved and printed in the Society's Journal, Mr. E. Pritchard drew special attention to the work now being undertaken in preparing a survey of conditions affecting sheep farming in the South and West of England. Sir F. B. Beauchamp in seconding the motion, also referred to the same subject, and said that not enough appreciation was given to the work of the Society outside the Show Yard. The motion was adopted, and the report follows :—

“The Council congratulates Members upon once again visiting Bristol where the Society is always sure of the heartiest of welcomes, and where many of the most notable of its meetings have been held. The City, ably represented by the Local Committee have done all in their power to make the present exhibition a success, and the thanks of the Society are due to them for this effort, and to the Hon.

Mrs. Smyth of Ashton Court for providing one of the most convenient and picturesque sites that the Show has ever occupied. It is impossible in the space of this report to mention every department of the Show which has depended to a great extent on local help, including, as such a list would, educational exhibits, demonstrations in the Show Yard, advertising, and the many smaller items which are necessary to a successful meeting, but the help received in all departments has been unstinted.

In addition to the Classes and Competitions held in the Show Ground, the generous support of the Local Committee has enabled the Council to arrange for Herd Competitions on a large scale in the Counties of Somerset, Gloucestershire and Wiltshire. These include competitions for Dairy Herds, Herds of Milk Recorded Cattle, and Utility Pig Herds, while the usual encouragement to Small-Holders has been given in Somerset by a competition for Small-holdings, with the help of the Agricultural Committee of the Somerset County Council. Special mention should also be made of the demonstration of the complete process of Cider Making which is being organised by the National Fruit and Cider Institute at Long Ashton. No more fitting display could have been arranged in view both of the long and close connection between the Society and the Institute, and of the holding of the Show so near to this important centre of Agricultural Research. Care has been taken to implement the National Mark Scheme of H.M. Government by insisting on the use of Home or Empire Produce in the Show Yard, wherever possible. One innovation also calls for attention, namely, the provision of separate shedding for Tuberculin Tested Cattle in accordance with the precautions laid down by the Ministry of Health.

The present year sees the termination of one series of experiments and demonstrations, and the inauguration of a new scheme which promises to be of great importance, and which will tax the resources of the Society's Experiments Committee. The considered opinion of the Committee on the best procedure to eradicate bracken has been reported in the current issue of the Society's Journal, and it has been clearly demonstrated that there are large tracts of bracken covered land, which are useless to the grazers in their present condition, that can be economically cleared and converted into useful pasture. The interest shown in these demonstrations is wide-spread and shows no signs of diminishing. The Committee is now undertaking the preparation of a Survey of Sheep Farming in the South and West of England, from which it is hoped to arrive

at the knowledge of those points of breeding, management and control of disease which most urgently require attention. Methods of management have altered fundamentally in recent years, as is instanced by the great increase in cross-bred flocks, and little if any scientific enquiry has been made into the problems thus raised. It will have to be decided later which of these problems the Society can usefully study, but the Survey has already enabled Mr. J. F. H. Thomas, Hon. Sec. to the Committee, to deal with an urgent enquiry from a large flock-owner and so to save a considerable number of lambs. In addition to these activities, your Council have made a second grant to the Longleat experiments in the Intensive Grazing of Pastures, as it was found that another year was necessary to check the results obtained. It will therefore not be possible to publish a report of these experiments until the next issue of the Journal.

The Society will have learnt with especial regret of the loss of such valued members as the late Earl of Radnor and the late Sir John Shelley, Bart. The Earl of Radnor was twice President of the Society, when the Show was held in Wiltshire : Sir John Shelley, elected to the Council in 1876, became a Steward of Stock in 1880 and acted in that capacity for 17 years, and was a Vice-President and Trustee of the Society. The loss of two other Members of Council has also to be reported, the late Duke of Northumberland, a Vice-President, and Col. R. A. Moore Stevens also a Vice-President, and for 14 years a Steward of Stock. Losses by death among Members has happily not been so numerous as in the previous year, while, thanks to the energy of some Members of Council the list of subscribers has been substantially increased. It now stands at 1,220, a figure not far short of the highest ever reached by the Society, and it is hoped that every effort will be made by Members to maintain this encouraging increase.

Your Council recommend that the Rt. Hon. Lord Digby, D.S.O., M.C., be elected President for the ensuing year. An invitation has been accepted to hold the 1932 Meeting at Yeovil, and the Yeovil Agricultural Society have expressed their intention of applying for amalgamation with the Bath and West for the year, and contributing to the prize fund. Council further recommend that His Grace the Duke of Beaufort, G.C.V.O., and the Rev. A. T. Boscawen be elected Vice-Presidents of the Society, and that those gentlemen named on the Agenda paper be elected Members of Council for the years 1931-33. A new departure has been made in the appointment of a Show Director, whose duty will be principally

to co-ordinate the work of the Show Stewards. Lord Radnor has accepted the position of Show Director, but has been forced, by pressure of many engagements, to relinquish his position as the Society's representative on the Governing Body of the R.A.C., Cirencester. Mr. A. L. Hobhouse has agreed to be nominated in his place. Mr. Lewis Marsh has been appointed Treasurer to the Society in the place of Mr. C. M. F. Luttrell who has held the position since 1909."

The Marquis of Bath, K.G., then proposed that the thanks of the Society be presented to the Lord Mayor of Bristol and the Local Committee for their efforts to promote the success of the Show. He was reminded of the first occasion, the year 1886, when he had attended a Show in Bristol, and the late Sir Thomas Dyke Acland had proposed the same motion. Visits to Bristol were not frequent enough, not only for material reasons, but because there the Society were sure of finding that welcome without which the Shows could not attain the degree of success that they had done. Lt.-Col. E. Lewis seconded the motion which was carried unanimously. Mr. A. R. White, O.B.E., proposed, and Major V. T. Hill seconded, a hearty vote thanks to those gentlemen who had kindly acted as Judges in the several departments.

Sir Sydney Humphries moved that the thanks of the Society be presented to His Grace the Duke of Beaufort for the valuable services he had rendered to the Society as President during the past year. This he said was a particularly pleasant duty. His Grace was well-known for the help he was always ready to give to any deserving institution. The City of Bristol owed him as great a debt of gratitude for his activities as High-Steward as the Bath and West for those during his term of office with the Society. Col. W. O. Gibbs seconded the motion, which was carried with acclamation.

The Earl of Radnor then proposed that a special vote of thanks should be passed to the Y.M.C.A. and to their Divisional Secretary, Capt. R. A. Norman, for the arrangements they had made for the stockmen and other employees in the Show Yard, under the primitive conditions which necessarily obtained there. Sir J. F. Shelley seconded the motion which was carried.

This ended the business of the Meeting.

XVI.—THE NATIONAL FRUIT AND CIDER INSTITUTE.

INTRODUCTION.

After the exceptional number of conferences and other occurrences of unusual character recorded in last year's Report, which combined to interfere with normal working conditions during 1930, it was expected that the work of the Department during the year following would proceed with little interruption by outside calls. For various reasons, however, 1931 also has been a year of unsettlement, and most sections of the Department have been affected at one time or another, as will be seen from the record of events of the year which follows.

The changes in arrangements at the Agricultural Advisory Centre at Berkeley Square, Bristol, brought about by the departure of Professor Hanley, and at the Campden Research Station, in consequence of the new scheme now in force there, have been effected without undue disturbance of the work in hand. At both places steady progress has been made under the new conditions. The Long Ashton Station, on the other hand, has not been able to avoid considerable unsettlement in consequence of staff changes, absence of staff through outside calls, and additions and alterations to the laboratory building.

There has been, to a larger extent than usual, a demand on the time of the staff of the Department in connection with educational exhibits provided at shows. This was inevitable owing to the holding of the Bath and West Show for the year at Ashton Court. An exhibit of considerably greater magnitude than usual was provided by the Department, and both its preparation beforehand and its demonstration at the time of the Show involved an extensive call on the services of the staff.

From August onwards, the financial crisis through which the country is passing has naturally not been without effect on the Department. The reduction of Government and County Council grants has rendered unavoidable a reduction of its commitments and programme of activities. While it is hoped to be able to carry on without drastic alterations during the current financial year, there is ground for serious anxiety for the future. To refer to one matter in particular, the five-year period for which the substantial grant from the Empire Marketing Board was made to Long Ashton

for its investigations on the factors governing fruit quality comes to an end next July. At the time of writing there is little prospect of the renewal of this grant, even in a reduced form. Consequently, although this line of research is yielding results of high practical value and has reached a stage full of promise for further results of even greater importance, it is feared that the team of workers engaged on the subject may have to be disbanded and the work suspended. Just at this time, when the future of commercial fruit culture in this country is so largely bound up with the question of improvement of quality, the cessation of this work, which has secured world-wide recognition, would be deplorable.

THE CAMPDEN STATION.

The new scheme for this Station, under which its activities are now concerned exclusively with research and advisory work relating to the canning of fruit and vegetables in its commercial aspects, is in full working order. In the matter of financial support by firms engaged in the canning and associated industries the response has been highly satisfactory, the subscriptions promised for the five-year period over which the present arrangement stands having exceeded the minimum sum stipulated by the Treasury many times. At the end of December 1931, the subscribing firms numbered 54.

As a consequence, the pressure of work on the very limited staff has become excessively heavy. Supplementary assistance had to be provided during the height of the canning season in 1931, but it is evident that the requirements of the situation should be met by the appointment of an additional research worker on the permanent staff. This matter is now under consideration and it is hoped that the financial resources of the Station will permit of this much-needed development.

The amount of time which has had to be spent by the staff away from the Station on advisory work has made it impossible for any regular series of courses of instruction to be organised. Short periods of study have been spent at the Station by a few individual students, including Mr. K. T. Rae, of the Agricultural Department of Grenada, and Mr. A. C. Shill, of the Department of Agriculture of Dominica, for whom arrangements were made during their stay in this country at the request of the Ministry of Agriculture.

Although, nominally, the Campden scheme is limited in its scope to the canning of horticultural produce, some attention has necessarily been given to more generalised questions, such for example as problems concerned with can-making and the lacquering

of cans. An extension of the field of work still further and touching other kinds of canned produce must sooner or later come up for consideration when the staff is strengthened, for many requests for advice and investigation in those directions are being received and there is no provision elsewhere for the kind of assistance required.

THE BERKELEY SQUARE ADVISORY CENTRE.

Since the departure of Professor Hanley in February 1931, the work at this Centre has been under the charge of Mr. A. W. Ling, in accordance with the arrangement stated in last year's Annual Report. An account of the work during the year is contained in a later part of the present Report. It shows that the expansion so marked in recent years is still continuing. In many directions there is evidence of appreciation of its value to the farmers of the Bristol Province. There has been maintained the closest co-operation with the staffs of the Agricultural Education Departments of the counties in the Province. In addition, the services of the staff and of that at Long Ashton have continued to be available for the investigations undertaken by the Experiments Committee of the Bath and West Society, of which both Mr. Ling and Dr. Wallace are members.

Among the more recent developments of the work special attention may be called to the survey on the cost of production of strawberries which has been undertaken by the Agricultural Economics staff. The survey is proceeding in the strawberry growing areas of Herefordshire and Worcestershire and in the Cheddar district in Somerset, where the hearty co-operation of the growers has been secured.

There have been few staff changes during the year. Mr. G. G. Hayes relinquished his duties as Student-Assistant in the Economics Department in September. An addition to the staff of this Department has been made by the appointment of Mr. H. T. Horsman, B.Sc., as Student-Assistant. Mr. R. B. H. Round, B.Sc., whose appointment as Assistant Agricultural Chemist was recorded a year ago, began his work in February. Mr. W. D. Menzies, M.R.C.V.S., the Veterinary Advisory Officer, came into residence in May on the completion of his special course of study in France. The great demand for his services during the short time they have been available indicates how urgent was the need in the Province for the advisory assistance in this subject which this new post now provides.

The recent staff increases have necessitated the provision of increased laboratory accommodation at Berkeley Square. Vacant rooms in the premises there have been fitted and equipped as laboratories for the veterinary work and for the grass analyses required in connection with the grassland investigations. Another room has been converted into a library and common room for the staff. An adjacent building has been altered to render it suitable for the accommodation of live animals sent to the centre for observation by the Veterinary Advisory Officer.

THE LONG ASHTON STATION.

At this Station the only staff change to be recorded has been in the post of Advisory Officer in Entomology. Mr. L. N. Staniland, A.R.C.S., D.I.C., who has held that post since 1924, accepted a corresponding appointment at Seale-Hayne College, Newton Abbot, for the South Western Advisory Province last May, and his place has been filled by Dr. H. G. H. Kearns. The latter fortunately, for some time past, while occupying the position of Lecturer in Zoology at Bristol University, has been in close touch with the entomological staff at Long Ashton. He has undertaken conjoint work with them on various problems and has thus been able to bring to his new duties some previous knowledge of the advisory problems of the Bristol Province in this subject. This advantage has proved of particular service since, owing to the serious illness of Dr. Walton, the Research Entomologist attached to the Station, during a large part of the year, coupled with Mr. Staniland's departure, the work in this subject would have been very seriously disorganised otherwise. Thanks to this and to the loan for two periods of Mr. Staniland's services by the Seale-Hayne College authorities—for which the Station is much indebted to the College—to enable him to complete his observations on certain spraying trials carried out by him earlier in the year, the effects of the absence of Dr. Walton were largely reduced.

The Station has also lost the services of Miss M. M. Walker, and Mr. K. C. Naik, M.Sc. In both cases, a year of post-graduate research work has been completed. Miss Walker has assisted Mr. Marsh in his investigations on Apple Scab, while Mr. Naik, under the supervision of Dr. Swarbrick, has carried out a piece of research related to the general problem of fruit bud formation, for which he was awarded the degree of M.Sc. by the University of Bristol. He has now returned to India to take up an appointment at the Lyallpur Agricultural College, Punjab.

The vacant places in the laboratory resulting from their departure have been filled by two other post-graduate workers, Prof. E. L. Proebsting, B.S., M.S., Ph.D., Department of Pomology, University of California, and Mr. D. V. Karmarkar, M.Sc., a graduate of Bombay University, from the Indian Institute of Science, Bangalore. Professor Proebsting, who is spending several months of his year of study leave, under a Fellowship of the U.S.A. National Research Council, at the Station, has of late years been carrying out investigations concerning mineral nutritional problems of fruit trees. During his stay at Long Ashton he has made, in collaboration with Dr. Wallace, a special study of certain soil problems in connection with the problem of potassium deficiency of fruit trees as it occurs in the larger fruit areas of this country. Mr. Karmarkar has taken up residence with a view to proceeding to the degree of Ph.D. and is engaged in a bio-chemical investigation relating to nitrogen metabolism in fruit trees under the supervision of Dr. Wallace.

Mr. L. G. G. Warne, a student in the Honours School of the Botanical Department of the University, is engaged on a physiological investigation relating to rootstock influence.

During the summer vacation, three students of the University were granted leave to pursue practical work in the Station laboratories, viz., Miss M. Carlton, in the Entomological Department, Mr. G. J. Lewis, in the Chemical Department, and Mr. D. E. Wheeler, in the Chemical and Entomological Departments. The assistance of such students, at the period of the year when there is great pressure of work in the laboratories, is very welcome, and there is no doubt that the experience gained by the students is of great value to them.

It was recorded in last year's Report that, in consequence of the new scheme for the Campden Station, Miss M. L. Adams was to be transferred to Long Ashton, which would serve as the future headquarters for her work on the Domestic Preservation of Fruit and Vegetables. The transfer was effected at the beginning of 1931. A Home Kitchen specially adapted for the work has been provided in the laboratory building. Since no hostel accommodation is available within convenient distance of the Research Station, the summer courses of instruction associated with this work were given by her at the Royal Agricultural College, Cirencester, by arrangement with the College authorities. In spite of some inconvenience in respect of regular supplies of fresh produce required for the courses, owing to the distance from the nearest fruit-growing and market garden centre, the experiment of holding

the courses there was a distinct success on the whole and will be repeated during 1932. A small plot of soft fruits has now been planted at the College to serve as a source of supplies on the spot.

Reference was also made in last year's Report to the award of a post-graduate studentship to Dr. J. Bloom for investigations in insecticides. The funds for this purpose have been provided by the Colston Research Committee of the University. Dr. Bloom began his work in February, 1931, and is engaged on a study of the toxic substances of *Pyrethrum* flowers.

Miss L. D. M. Knight, B.Sc. (Bristol), has held throughout the year the appointment of research assistant in the Chemical Department.

The recent staff increases and the demand for facilities for post-graduate research have led to very congested working conditions in the laboratory building. Efforts to provide more accommodation therefore have had to be made. Thanks to a special capital grant forthcoming from the Ministry of Agriculture and Fisheries, supplemented by an equal contribution from the Station, it has been possible to add a new wing to the laboratory building during the year. This will permit of additional room being available for more post-graduate workers in future and will give the existing staff an opportunity of carrying on their work under more satisfactory conditions.

Other changes at the Station have been few. Practically the whole of the land there suitable for field experiments in fruit culture has already been planted up and, with the exception of small plots which come to hand from time to time as the experiments on them are completed, there is little opportunity for new plantings. Provision has been made for permanent quarters for a series of trees relating to the rootstock investigations, and there has also been some additional planting of soft fruits among the tree fruits, and elsewhere where room has been available, in order to secure increased returns from the plantations to counterbalance to some extent loss of income from grant reductions.

The extension of field trials and experiments on growers' fruit farms in various parts of the country, referred to in recent Reports, continues. The results from the earlier established of these are now coming to hand and are affording valuable supplementary evidence obtained under very varied conditions to that which is being secured at Long Ashton. To all who, by their co-operation, have made possible this valuable addition to the central trials at the Station, thanks are due.

Although there has been no succession of conferences such as those of 1930 to break into the working time of the staff of the Station, the year under review has not been entirely free from interference by outside calls other than those associated with show exhibits. The Centenary Meeting of the British Association was marked among other respects by the establishment of a Horticultural Sub-Section of the Agricultural Section for the occasion only. This was attended by several members of the staff, some of whom contributed papers.

During September, a special "refresher" course for horticultural officers, lasting for one week, was held at Reading under the auspices of Reading University in conjunction with the Ministry of Agriculture and Fisheries, at which five members of the Station staff contributed papers.

The Deputy Director of the Station, Dr. T. Wallace, who is a member of the Soils Correlation Committee, a body recently appointed by the Ministry of Agriculture and Fisheries and the Board of Agriculture for Scotland for the purpose of correlating soil survey work in Great Britain, was absent from the Station for a period of six weeks in April and May, during which time the Committee made a tour of the various areas in England in which soil survey work is in progress.

The absence of international conferences in this country concerned with subjects in which the Station is interested has been responsible for the falling off of the large influx of visitors from overseas which was a feature of 1930. In spite of that their number has been considerable, including several with special interests in the work of the Station on account of their connection with related researches in their own countries. Among these may be mentioned Mr. W. M. Carne, Senior Plant Pathologist, Division of Plant Industry, Australia; Mr. A. M. Mustapha, Imperial Agronomist, Pusa, India; Prof. A. E. Murneek, University of Missouri, U.S.A.; Prof. R. N. Hodgson, University of California, U.S.A.; Prof. W. V. Filewicz, Sinoleka, Poland; Prof. Dufour, Ecole d'Horticulture, Vilvorde, Belgium; and Dr. M. Bahgat, Department of Horticulture, Egypt. There has also been a constant succession of visitors from various parts of this country interested in the Station's general work or some special feature of its ever-expanding programme. Many of them are engaged in some branch of commercial horticulture and their visits have further assisted to strengthen the close link which has been made in recent years between the Station and the horticultural industry.

A feature of the year's visits has been the exceptionally large number paid by organised parties. These are becoming so numerous that it has been found necessary to limit them to bodies having some association with the Station or direct interest in some branch of its work. Among the parties, two may be singled out for particular mention on account of their special character, reference being made to the party of South African farmers touring this country and that of members of the National Farmers' Union. Reference should also be made to the visit of a party of students of the Institute of Certificated Grocers during their tour of the country, organised by the Ministry of Agriculture and Fisheries. The following is a complete list of the organised parties received during the year :—

Ministry of Agriculture and Fisheries Soils Correlation Committee.
University of Bristol Botanical Society.
St. Anne's Park Horticultural Society.
Nailsworth Branch of the National Farmers' Union.
Port of Bristol Authority Staff Association.
Bristol Education Committee's Gardening Classes.
Herefordshire Branch of the National Farmers' Union.
Oxfordshire Education Committee Horticultural Party.
National Fruit and Cider Institute (Open Day for Members).
Workers' Educational Association.
Faringdon and District Horticultural Society.
Clifton College Scientific Society.
Brislington and District Gardeners' Association.
East Ward Allotments Association, Oxford.
Institute of Certificated Grocers' Students.
South African Farmers.
Backwell Women's Institute.
Bristol Branch of the Somerset Bee-Keepers' Association.
National Farmers' Union Touring Party.
Kilton Agricultural Institute Old Students' Association.
St. George and Shirehampton Allotments Associations.
Agricultural Education Association.
Bristol Post Office Retired Officers' Association.
Belgian Scientists from Ecole d'Horticulture de l'Etat, Vilvorde.
Bristol Co-operative Society's Horticultural Association.
Bristol University Settlement.
Fishponds Training College Students.

On the occasion of the Annual Tasting Day on Thursday, May 7th, 1931, the prizes awarded under the Cider Competitions Scheme were distributed and an address given by Mr. H. V. Taylor, Horticultural Commissioner of the Ministry of Agriculture and Fisheries, in the unavoidable absence of Earl de la Warr, Parliamentary Secretary to the Ministry. For many years, the attendance at this annual function has been increasing. By 1930 it had reached proportions which rendered adequate organisation difficult. The numbers again were largely exceeded in 1931, when a total of over 2,500 visitors was

recorded. Steps may therefore have to be taken in future to limit the party to a manageable size.

The extra-mural work of the Station in the form of lectures, demonstrations, show exhibits and other forms of educational effort continues to expand, and a point has been reached which makes it necessary to place a limit on this side of the Station's activities to prevent undue interference with the normal research and advisory work. Some curtailment of exhibits at shows was imperative in 1931 in view of the very large expenditure of effort and money incurred through the holding of the Bath and West Show at Long Ashton. At this show, in addition to an unusually extensive exhibit dealing with the various sides of the work of the Department on similar lines to those arranged in previous years, a special exhibit illustrating modern methods of cider making in its practical and scientific aspects was organised. This was probably the most comprehensive exhibit of the kind ever shown in this country. It was included in the building housing the demonstrations of the Ministry of Agriculture illustrating the various National Mark schemes, in view of its special relation to the recently introduced scheme of the National Mark for Cider. It attracted much attention throughout the show and, judging from the nature of enquiries received, served a very useful purpose in demonstrating to farmers and others the conditions required for the production of cider of National Mark standard.

The following list indicates the shows and exhibitions at which educational exhibits were provided during 1931 :—

- Bath and West Show, Bristol.
- Devon County Show, Tiverton.
- Three Counties Show, Hereford.
- Wilts County Show, Chippenham.
- Cheltenham Floral Fete, Cheltenham.
- Swindon Allotment Holders' Show, Swindon.
- Shaftesbury and Gillingham Show, Shaftesbury.
- Abergavenny Horse Show, Abergavenny.
- Bedwelty Show, Blackwood.
- Melplash Agricultural Society's Show, Beaminster.
- Evesham Asparagus Growers' Association Show.
- Oxford County Federation Women's Institutes Produce Exhibition.
- Gloucester County Federation Women's Institutes Produce Exhibition.
- Warwickshire Federation Women's Institutes Produce Exhibition.
- Imperial Fruit Show, Manchester.
- Brewers' Exhibition, London.

Reference has been made in detail on previous occasions to various investigations undertaken in collaboration with workers at other institutions. These are being continued and are regarded as of special value, as they afford a means both of widening the scope of the work and of checking results of joint interest to an extent and in a manner not possible otherwise.

With the increased resources resulting from the transfer of the work on Fruit Products from Campden to Long Ashton it has been possible to extend the work on cider and associated subjects. The establishment of the National Mark Scheme for Cider has involved several investigations on specific questions arising therefrom in conjunction with the Government Chemist. What promises to be an interesting and important line of research on the causes and treatment of the problem known as "caskiness" in casks has been started in consequence of a special grant made to the station by Messrs. Guinness, Ltd.

It is a pleasant duty again to acknowledge the most useful help rendered by all grades of the assistant staff. Throughout both the technical and administrative staffs there has been a spirit of most loyal co-operation and hearty endeavour to contribute their share to the success of the work of the Station and its difficulties have been greatly lightened thereby.

ADVISORY WORK.

Although the number of enquiries received during the year ending September 1930 showed a very large increase over the numbers submitted in any previous year, the figures for 1931 show a further increase over the 1930 record, thus demonstrating the continuous steady expansion of the advisory activities of the Department.

Of the ten subjects which contribute to the advisory statistics, increases were recorded in eight, viz. : Agricultural Chemistry, Dairy Bacteriology, Cider and Fruit Products, Cider Instruction, Pomology, Horticultural Chemistry, Economic Entomology and Disease Control Materials and Methods.

The increases in the cases of Cider Instruction, Pomology, Economic Mycology and Willow Growing were very substantial and may be accounted for by special activities of the members of staff concerned with these subjects. Thus under the Cider Instruction Scheme, the production of good quality bottled cider on the farm has aroused great interest among farmer cider makers in certain areas ; in Pomology the rapid increase reflects the great interest which growers take in the Pomological investigations in progress at Long Ashton ; the Mycological increases are largely the result of fruitful investigations relating to vegetable diseases, whilst a considerable proportion is also due to enquiries relating to hop diseases ; in Willow Growing the increase is especially large

due to interest recently aroused by the Willow Officer in the subjects of pest control and the cultivation of the cricket bat willow.

The decreases shown in both Economic Entomology and Disease Control Materials and Methods are almost entirely due to the fact that in the previous year the numbers were abnormally high as a result of enquiries by manufacturers of winter washes and growers, relating to the making and utilising of the recently devised Long Ashton Winter Wash, and other related spray fluids.

The following table summarises the numbers of enquiries submitted during the last six years.

	Year ending September 30th.					
	1926	1927	1928	1929	1930	1931
Gloucester	277	208	229	230	365	414
Hereford	92	115	100	118	137	159
Somerset	336	307	336	325	482	553
Wiltshire	225	143	206	235	219	265
Worcester	104	168	162	148	256	323
Other Areas	309	478	495	721	1025	919
	1343	1419	1528	1777	2484	2633

Included in the figures under "other areas" are enquiries received from Devon and Monmouth, both of which contribute annual grants to the Long Ashton Institute, and from Dorset, which participates in the Scheme for Local Instruction in Cider-making. None of these counties ranks officially as part of the Bristol Province for general advisory purposes, though an arrangement has been made during the year, with the concurrence of the Ministry of Agriculture and Fisheries and the Commissioner for Agriculture for Wales, whereby Monmouth is recognised as part of the Bristol Province for Advisory purposes relating to Horticulture.

The list does not indicate the very numerous enquiries dealt with in personal interviews during survey work, local investigational work, shows, etc. Enquiries relating to the subjects of Agriculture, Economics, Veterinary Science and Fruit and Vegetable Preservation are not included, since figures are not available for these subjects over the six year period.

The following features referred to in the sectional reports which follow call for special mention :—

Agriculture and Agricultural Chemistry.

The number of requests for advice and the number of visits to farms, dairies, mills, etc., have again increased considerably. The Agricultural Officer is working in close co-operation with many of the feeding stuff manufacturers in Bristol and district, and his advice has been sought freely on the question of the composition of rations for cattle, sheep, pigs and poultry.

During the year the following investigations, which have been outlined in previous reports, have been concluded :— (a) Bracken Eradication ; (b) Suitable varieties of Sugar Beet ; (c) Mixed Corn Crops for home consumption ; (d) the value of Arctic White Sweet Clover. Reports have been issued on each investigation.

The work of the Department in connection with grassland problems has increased very rapidly, and it is desired to extend this activity still more in the future. The feeding value of grass throughout the whole year is being examined, and a collection of over 1,000 grass and hay samples from many areas in the Province and elsewhere has been made. These samples, which represent all types and conditions of grassland, have been dried, pulverised and bottled. Many of them have already been analysed, and some valuable data obtained. A section of this work is being conducted jointly with the Royal Agricultural College, Cirencester, which in addition, co-operates with the Department in many of the Provincial Trials. The financial assistance of the Bath and West and Southern Counties Agricultural Society towards this grassland work has made it possible to widen the scope of the enquiry very considerably.

The field work in connection with the Longleat grazing trials is to conclude at the end of the present grazing season, after a continuous run of five years. Whilst an extension of this side of the investigation would have been very desirable, it is hoped that the field data already collected, together with chemical data from the analysis of the herbage and soil samples, will provide useful and practical information to grassland farmers in the Province.

Certain aspects of the Sugar Beet problem are still receiving attention for, although the manurial cultivation trials conducted during the past four years have provided sufficient information for general advisory purposes, there are still a number of special problems, such as the question of the most suitable forms of phosphatic manure to use with the crop when grown on acid land, which require further detailed investigation.

Agricultural Economics.

The investigational work that has been carried out by the Advisory Economist during the past six years has now reached the stage when it can be used as a safe basis for advisory work. This is the outcome of a consistent policy of collecting as many financial records as resources of staff and finance have permitted.

The Adviser was asked by the Ministry to prepare a national

scheme for ascertaining the cost of production of strawberries. This scheme has now been adopted by four centres, in addition to Bristol, and the collection of the necessarily large amount of data has been begun in Herefordshire and Worcestershire. It is hoped to extend the enquiry into the Cheddar Valley district.

The enquiry into the cost of production of sugar beet during the past four years has been concluded, and the results and conclusions embodied in a University Bulletin.

A new series of periodical publications is being made, dealing with the application of statistical methods to farm accounting data. Under this new development, three reports have already been published and others are in the course of preparation.

Dairy Bacteriology.

Since this section has been in existence for over six years it is possible for the first time to include in the Departmental summary comparative figures for the annual number of enquiries received over the six year period. It will be noted from the following table that during the six year period the annual number has been almost doubled, although it has not been possible to increase the Staff for dealing with the large amount of routine work, which has always been an essential part of the function of the Dairy Bacteriologist.

ENQUIRIES IN DAIRY BACTERIOLOGY.
January 1924 to September 30th, 1931.

Years ending September 30th.						
Jan. 1924 to Sept. 1925.	1926.	1927.	1928.	1929.	1930.	1931.
33	127	117	161	173	202	232

The Dairy Bacteriologist is examining the possibility of using simpler methods of testing milk samples received in connection with the Register of Accredited Milk Producers and an experimental scheme is to be started in Wiltshire at the beginning of 1932.

The Advisers in Dairy Bacteriology and Veterinary Science are co-operating with the Wiltshire County Council and the National Institute for Research in Dairying in a farm demonstration of the value of autogenous vaccines against mastitis, which disease involves many farmers in considerable financial loss annually.

Veterinary Science.

The Adviser in Veterinary Science commenced his duties at Berkeley Square in the middle of May, 1931, so that his activities

outlined in the report cover only a period of four months so far as the Bristol Province is concerned. Even in this short time there has been ample evidence of the necessity for this Officer in the Province, particularly in connection with the diseases of sheep and poultry. The Adviser is at present engaged on a survey of the most important diseases of farm stock in the Province, and from the preliminary information already obtained it is certain that he will have many important problems to investigate.

Economic Entomology.

The Adviser in this subject has continued to pay special attention to field problems relating to the use of winter washes as means of controlling such pests as Capsid Bugs, Winter Moths, etc. A comprehensive series of field experiments was carried out with washes of this type on apples and black currants, a new feature being the testing of heavy mineral oils on a large scale under varied conditions. Washes containing mineral oils have given excellent control of capsids on black currants, but with apples there were some cases where satisfactory commercial controls were not effected, the results being somewhat variable.

Economic Mycology.

The year under review has seen considerable advances in knowledge of vegetable diseases occurring in the Province. Several hitherto obscure diseases of asparagus, dwarf beans, peas, leeks, onions and marrows have been fairly well elucidated. Particular emphasis has been laid on the field aspects of these and other vegetable diseases and methods of complete or partial control have been evolved in several instances.

Certain diseases of hops assumed serious proportions during the year in the intensive hop growing areas of Worcestershire and Herefordshire, and these have called for special attention. Special measures have been taken, in conjunction with the Ministry's Inspector for the areas and the Officers of the County Agricultural Authorities concerned, to deal with the situation in 1932.

Willow Growing.

Advisory work relating to willow culture continues to expand as the results of investigations at Long Ashton become more widely known among growers. In particular, enquiries relating to the control of pests and diseases, a subject much neglected hitherto, and to the cultivation of the cricket bat willow have been numerous.

The subjects covered by the advisory work of the Department are

Agriculture, Agricultural Chemistry, Agricultural Economics, Dairy Bacteriology, Veterinary Science, Cider and other Fruit Products, Fruit and Vegetable Preservation, Pomology, Horticultural Chemistry, Economic Entomology, Economic Mycology, Disease Control Materials and Methods, and Willow Growing.

The salient features of the work under each of these during the year are summarised below.

AGRICULTURE.

Since the appointment of the Agricultural Officer in 1931, the advisory work of the University in connection with general Agriculture has increased very considerably, more particularly with reference to grassland, farm stock and rationing. Most of the stock food manufacturers and "compounders" in Bristol have sought advice concerning the composition of balanced rations for cattle, sheep, pigs and poultry. A number of lectures on the feeding of live stock and animal nutrition has been given. Many herbage plants and weeds have been received for the purpose of identification and report as to commercial value, poisonous properties, etc., and the co-operation of the Department of Botany of the University in this work is readily acknowledged.

The various activities within the Bristol Province relating to grassland, initiated by Professor Hanley, have been continued. In addition, co-operative work with the Royal Agricultural College, Cirencester, on the subject of the manuring of grassland for pasture and hay was commenced in the spring. Soil and herbage data are being collected from the plots situated at the College.

AGRICULTURAL CHEMISTRY.

319 requests for advice were received and 792 samples were analysed in connection with these enquiries.

The main investigations in progress or completed during the year were as follows :—

(1) *Grass Land.*

(a) *Longleat Grazing and Manuring Experiments.*—The sampling of the herbage and soil from 16 plots at this centre has been continued. Complete stocking and botanical records have been kept by the resident recorder. The experiment was planned to continue for a period of 5 years in the first instance, but it was hoped that an extension would be granted by the owner of the estate. Unfortunately this has not been obtained, so that the field work terminated with the close of the present grazing season. Provision

has been made by the Ministry of Agriculture and the Bath and West Society for the continuation of the laboratory work in connection with the large number of grass and soil samples that have been collected during the past five years from the plots.

(b) *Development Commission Pasture Experiments.*—The trial plot situated on the Marlborough Downs has been continued during the present season and although there appears to be a possibility that the scheme as a national one will be discontinued, arrangements have been made to continue, so far as the Bristol centre is concerned, for a further period. The chemical analyses of the herbage, which were formerly carried out elsewhere, will be conducted at Bristol.

(c) *Nutritive Value of Pasture Grass.*—The examination of the large number of samples (approximately 1,000) which have been collected from grassland trial centres in the Province and elsewhere, has been continued during the year. Attention is also being paid to the feeding value of winter grass.

(2) *Arable Land.*

(a) *Sugar Beet.*—Two trial centres have been established in the Province, both on comparatively light soils, where crop failures due to acidity have been reported for a number of years, with the view to studying the value of basic slag alone, against dressings of other phosphatic fertilisers and lime on the sugar beet crop. A full report on these experiments appears elsewhere in this Journal.

The variety trials referred to in the previous report were concluded during the year. Marsters Hilleshog and Kleinwanzleben E. produced the highest average yield of sugar per acre throughout the Province, and Zapotil I the lowest. The highest yield of tops was obtained from Zapotil I, whilst the lowest was produced by Marsters.

(b) *Flax.*—The flax manurial trials conducted in Somerset, Wiltshire and Dorset (in collaboration with the Reading Province), have been continued during the present season on a modified scheme in view of the information obtained from the trials carried out in the previous year, which indicated that the quantities of phosphatic and potassic fertilisers usually employed could be decreased, or conversely the amount of nitrogen increased.

(c) *Mixed Corn Crop Trials.*—The following conclusions have been made on the results of the Winter and Spring Sown Mixed Corn Crop Trials conducted last year: (a) the success of mixed corn crops harvested for grain is dependent upon suitable weather

conditions, and suitable varieties of legumes and cereals ; (b) during the season 1929 there was a reduced yield in the case of the winter sown crops as compared with single crop controls ; (c) the depredations of birds, etc., seriously affected the yields from the spring sown crops, the leguminous seeds suffering most from such attacks : (d) the growing of such crops would appear to be justifiable only when the cost of purchased protein foodstuffs is high in relation to the price of milk or the commodity sold off the farm.

(d) *Seeds Mixture and Clover Trials.*—The temporary and permanent ley trials have been continued. The investigation of the value of Arctic white sweet clover as a forage crop has been concluded. The clover was planted in May 1930, and all the plants (both inoculated and uninoculated) had died by September 1931. During the two growing seasons the following data were obtained :—

	Total yield per acre (tons).	Yield of Dry Matter per acre (tons).	Yield of True Protein per acre (tons).	Yield of Crude Fibre per acre (tons).
1930	16	3.8	0.4	1.3
1931	26	6.2	0.6	2.1

Although a high yield of material was obtained, the fibre content is very high (33% of the total dry matter), and the yield of protein comparatively low. The material cut green was not taken readily by stock, and in certain instances it was completely refused.

(e) *Weed Eradication.*—In conjunction with the Agricultural Organiser for Herefordshire an experiment has been started to ascertain the usefulness of sodium chlorate in the control of weeds.

AGRICULTURAL ECONOMICS.

During the past year the work in Agricultural Economics has been continued along the lines laid down in previous years, namely, those relating to simple financial accounts. Advisory work in farm management problems has been carried out by personal visits to farmers, *i.e.*, the individual method and by the issue of periodical reports, *i.e.*, the group method.

The records show that, although in economic matters relating to farm management, it is seldom possible to adjust the internal or external organisation with any considerable degree of rapidity, nevertheless, examination over a period of 2 or 3 years, of a large proportion of the farm accounts analysed by this centre, shows that the advice is undoubtedly being acted upon.

Investigational Work.

The following summarises the investigational work being carried out :—

(a) Costing.

<i>No. of Farms.</i>	<i>Total Acreage.</i>
9	3,258

These may be classified as follows :—

<i>Percentage of Permanent Grass.</i>	<i>No. of Farms.</i>	<i>Type of Farms.</i>
0 — 30%	1	Cereals.
31 — 70%	2	Milk.
71 — 100%	{ 4	Milk.
	{ 2	Mixed.

The above are being costed in full by the “Oxford” method, which entails the keeping of labour time sheets, feeding stuffs and fertilisers records, and a register of movements of live stock.

(b) Financial Accounts.

The Bristol Centre has always considered that the best way of advising farmers is by means of the analysis of financial accounts, and for that reason has rather specialised in this branch of work. 243 farms, comprising nearly 100,000 acres, are submitting accounts of this kind.

(c) Special Investigations.

- (1) The ascertainment of the cost of production of sugar beet on 20 farms in Herefordshire and Worcestershire has been continued during the past year.
- (2) In August last an investigation into the cost of production of strawberries was commenced in Herefordshire and Worcestershire, and steps are being taken to extend the enquiry into the Cheddar Valley, Somerset.
- (3) The special statistical investigations into mathematical correlations based on financial account data have been continued during the year and are proving satisfactory.

A new series of periodical publications is being made by the Department dealing with the application of statistical method to farm accounting data. Three of these reports have now been made of which the first is simply a list of the farms which form the basis of the studies. The second report, entitled “*Production in Relation to Capital and Costs, 1929 Crop*,” is an attempt to connect variations in production with variations in (a) capital and (b) costs, by means of simple statistical correlation methods. Tables are included giving the difference between “actual” and “calculated” production, upon the assumption that the factor of production is

dependent upon the size of the capital and upon the size of the costs. The degree of correlation between production and costs was found to be very high, but that between production and capital was rather low.

The third issue of this series, entitled "*Influence of Arable upon Production*," established the change in production, capital, total costs and labour costs as the proportion of arable land varied on a farm from 0% to 60%. For example, in Wiltshire and the three counties of Gloucestershire, Herefordshire and Worcestershire, each of these factors showed a decline as the proportion of arable increased; in Wiltshire a rapid fall in costs appeared, but there was an even greater fall in production. The three counties also showed a rapid fall in cost yet with but little change in production. In Somerset, capital, total costs and labour costs all rose with increasing arable, while production was, at the same time, falling.

DAIRY BACTERIOLOGY.

232 requests for advice were received and 815 samples of milk were examined in connection with these enquiries. The total of milk samples received by the Dairy Bacteriologist from all sources was 4,723.

Clean Milk Competitions.

The Department has again co-operated with the counties concerned in the following clean milk competitions :--Gloucestershire, Somerset, Wiltshire and Worcestershire. In each case the competition was of six month' duration. In Wiltshire the competition was a small one restricted to novices, and served as a useful preliminary to entry on the Register of Accredited Producers.

The Register of Accredited Producers has been continued in Wiltshire, and the number of 54 producers on the Roll has been maintained.

Advisory Work.

The bulk of the advisory work has been in connection with milk of poor keeping quality, and taints in milk. A number of wholesale dairies are seeking advice on problems concerning the handling of milk.

Investigational Work.

Owing to pressure of work of a routine and advisory nature, it has not been found possible with the facilities available to conduct any large scale investigations. A study is being made of the methods employed in the examination of samples of milk, submitted in

connection with Registers of Accredited Milk Producers, in order to explore the possibilities of quicker and cheaper methods of analysis.

In collaboration with the National Institute for Research in Dairying and the Adviser in Veterinary Science, the use of an autogenous vaccine in severe outbreaks of mastitis is being demonstrated in Wiltshire.

VETERINARY SCIENCE.

The Adviser in Veterinary Science commenced his duties in Bristol on May 13th, after a special course of 8 months duration in France. During the four months work at Bristol covered by this report, 38 requests for advice have been received and 30 pathological specimens examined.

As a preliminary to future work a survey of the most important diseases is being made with the help of information received from veterinary surgeons, farmers and Agricultural Organisers in the Bristol Province. In Wiltshire, more especially in the Swindon area, calf scour appears to be so prevalent and rapidly fatal that it is practically impossible to rear calves on many farms. Amongst cattle, the outstanding diseases are Johne's Disease, Contagious Abortion and Mastitis. In pigs, "three weeks scour" has caused very serious losses. A considerable amount of work in connection with the diseases of sheep and poultry has been undertaken.

CIDER AND OTHER FRUIT PRODUCTS.

549 enquiries, including 224 under the Cider Instruction Scheme in the counties of Dorset, Monmouth and Worcestershire, received attention during the year.

The general character of the enquiries has been similar to previous years, though certain features have been especially prominent.

The introduction of a National Mark Scheme for Cider, by the Ministry of Agriculture, has resulted in many applications for advice on points relating to the scheme, and for examination of ciders in connection with National Mark standards. Enquiries have shown an active interest in the planting of Sweet and Bitter-sweet varieties of cider apples in fruit growing areas outside the recognised cider areas. These varieties are being planted with the object of utilising cull fruits from commercial crops to better advantage for cider-making. Overseas enquiries continue to increase.

The transfer of the work on Fruit Products from Campden to Long Ashton has led to an increase in enquiries under that head. The most frequent subjects of enquiry were in connection with the making of fruit wines, and the manufacture and utilisation of pectin products.

The Instructor in Cider-making paid special attention to the following points in his counties.

Utilisation of "Cull" Fruits for Cider Making. In Worcestershire, where large quantities of commercial fruit are grown in the cider districts, attention has been given to the problems of judicious blending of commercial culls with cider varieties to produce palatable beverages, and of the management of the ciders obtained by these means.

Bottling of Cider. Experiments have been continued relating to the special local problems of producing bottled ciders on the farm.

Filtering. Demonstrations on filtering were continued on farms, since this operation is essential in the production of high quality bottled ciders.

Orcharding. Further records on the Trial Cider Orchards were taken. The planting of Bittersweet varieties has been advocated.

POMOLOGY.

361 enquiries were received, of which 152 were from centres outside of the Bristol Province. Practically every phase of fruit growing was represented in the requests, the following being among the most frequent subjects dealt with: planting of new orchards, top-grafting of established trees, use of root stocks, pruning, bark ringing, raspberry cultivation, suitability of varieties of soft fruits for canning purposes.

The Pomological surveys in conjunction with soil survey work in the Evesham, Pershore and Cheltenham areas were continued.

HORTICULTURAL CHEMISTRY.

122 enquiries, including 49 from sources outside of the Province, were received.

Special investigations were continued as follows:—

1. Field experiments on "The Manuring of Fruit Trees, Bush Fruits and Vegetable Crops."

In the experiments on fruit, special attention has been devoted to the action of potassic and nitrogenous fertilisers, and in one case the effects of lime on gooseberries growing on an acid soil have been examined.

Striking effects due to potash and nitrogen have been obtained at various centres. Lime was without effect.

In the vegetable experiments, the great value of potash for asparagus on an important soil area in the Evesham Vale has been established.

2. Survey of soils in the fruit and market-garden areas on the Lower Lias formation around Evesham, Pershore, and Cheltenham.

Excellent progress has been made with the mapping of the soils of the areas on a "Series" basis. The mapping of the various "clays" has been completed.

ECONOMIC ENTOMOLOGY.

The number of enquiries received during the year was 352, of which a considerable number concerned Long Ashton tar-distillate wash and Pyrethrum spray fluids.

The principal investigations carried out during the year were as follows :—

Field Trials with Tar Distillate—Heavy Paraffin Washes.

Following up the successful trials against *Lygus pabulinus* in 1929-30, further field trials against both this species on black currants, and against *Plesiocoris rugicollis* on apples were carried out at a number of centres, using tar-distillate-heavy paraffin washes in varying proportions. Two types of paraffin, "white" and "half white," were tested. The results against *Lygus* were again highly satisfactory. In the case of *Plesiocoris* the tar distillate-heavy paraffin washes gave results superior to those of the "high neutral" type used alone, but failed completely at one centre, and to a large extent (on the variety Bramleys Seedling) at another. "High neutral" tar oil type wash failed to give a satisfactory commercial control at several centres.

Apple Sawfly (Hopllocampa testudinea).

It is desirable to determine the best time of application of a nicotine wash for the control of the Apple Sawfly, and experiments with this object were carried out on the apple variety Worcester Pearmain. The most efficient control was obtained by spraying the fruitlets five to seven days after blossom fall.

The Relationship of Lygus pabulinus to Markings on Apple Fruit.

Preliminary experiments carried out under field insectory con-

ditions failed to show that the Capsid was responsible for any fruit markings. Further experiments have been arranged to obtain confirmatory data.

Correlation between the Salicin Content of Willows and Susceptibility to Insect Attack.

It has been shown that there is a correlation between the salicin content of willows, and liability to attack by the Willow Beetle ((*Phyllodecta vitellinae*). Possible correlations are being examined for other Willow insect pests.

Control of the Larvae of Otiorrhynchus sulcatus attacking Greenhouse Plants.

The root feeding larvae were not killed by dipping pots of infested cyclamen into Pyrethrum emulsions. Paradichlorobenzene incorporated in the potting soil provided a high measure of control, but harmed the roots of the plants.

The Spreading and Adhesive Properties of Colloidal Lead Arsenate on Willow Foliage.

One of the principal reasons for the failure of lead arsenate to provide efficient control of Willow Beetles has been due to uneven spreading of the insecticide on the foliage. Colloidal lead arsenate, used in conjunction with the spreader Agral I, gave an excellent cover of the leaves of a large selection of willow varieties, and adhered for a long period.

The Control of the Blow-Fly of Bacon.

Experiments were carried out in the laboratory and in a bacon factory, to determine the efficiency of Pyrethrum preparations as repellents to Blow Flies. Preliminary experiments showed that the active principles of Pyrethrum in a vegetable oil gave promising results.

Repellents to Insects attacking Man.

A number of repellents were investigated, and a preparation consisting of pyrethrins, incorporated in vegetable oils, was the most efficient repellent to flies, mosquitoes, midges, harvest bugs, etc.

ECONOMIC MYCOLOGY.

The number of advisory letters despatched during the year was 307, compared with 299 in the previous season.

The following is a summary of the chief diseases under investigation :—

Fruit. Die-backs of apple trees (associated with *Cytospora* sp.); fruit rots of apples, especially that caused by *Gloeosporium album*; strawberry leaf spots and fruit rots.

Vegetables. Asparagus diseases (especially the control of *Rhizoctonia Crocorum*); “halo blight” of dwarf beans (caused by *Bacterium Medicaginis* var. *phaseolicola*; diseases of leeks (especially the control of “white tip” caused by *Phytophthora Porri*); lettuce diseases; mint rust (*Puccinia Menthae*) and its control; parsnip canker; foot rots and pod spots of peas; mosaic of peas; mosaic of marrows; and “potato sickness.”

Flowers. Freesia mosaic; gladiolus corm rot; the control of black blotch of delphiniums (*Bacterium Delphinii*).

Miscellaneous. Willow rusts and their control; hop diseases occurring in the Province and their control (downy mildew, nettle-head, mosaic, split leaf, chlorotic disease, etc.).

DISEASE CONTROL MATERIALS AND METHODS.

132 enquiries relating to these subjects, of which a large proportion, 114, came from outside the Bristol Province, were received.

Of the total enquiries, 30 emanated from manufacturers of winter washes, 15 came from various sources overseas, and 21 concerned the use of Pyrethrum spray products.

WILLOW GROWING.

217 enquiries were received concerning problems connected with willow growing. The main subjects of enquiry were as follows :—

The control of insect and fungus attacks.

Manurial treatments and drainage operations.

Renovation of old beds.

Methods of preparation of land for planting, and varieties suitable to plant.

The cultivation of the cricket bat willow.

In the past the inadequacy of Knapsack spraying of willows has been frequently demonstrated in Somerset, and in the present season two public spraying demonstrations were given in collaboration with the County Horticultural Superintendent, in which efficient spraying methods were shown.

Experiments have been commenced on the renovation of old beds in which the use of long sets, closely planted, is being examined.

The Somerset County Council willow beds continue to serve the useful purpose of demonstrating the local value of certain varieties. The plantings of several sorts which have proved of special value in the trials have been extended, and seedling varieties raised at Long Ashton have been added to the experimental beds.

CHEMICAL INVESTIGATIONS RELATING TO POTASSIUM DEFICIENCY OF FRUIT TREES.*

By T. Wallace.

In previous investigations at this Station, it has been shown that potassium deficiency in fruit trees is an extremely serious problem in the important fruit areas of this country. As the result of this deficiency, fruit plants such as the apple, gooseberry, black currant and red currant exhibit the condition known as leaf scorch, whilst certain varieties of plums, *e.g.* Purple Pershore, develop a chlorotic appearance in addition to showing the marginal scorching of the foliage.

In former publications, investigations relating to various aspects of the problem have been reported (2 to 7) and the data presented in the papers have included some chemical results illustrating the way in which potassium deficiency has been reflected in the composition of the plants in certain particular cases (3, 5, 6, 7).

Concurrently with the work already described relating to leaf scorch, comprehensive chemical studies were initiated, but the complete results have not been reported hitherto owing to the time required to complete the chemical determinations involved. The more important features of these results are summarised in the present paper.

In this branch of the investigations, it was considered desirable to determine the extent to which potassium deficiency is reflected in the various parts of fruit plants and to see how far observations relating to soil conditions, susceptibility of materials and remedial measures in cases of potassium deficiency could be linked up with chemical features of the plants.

* Reprinted from *The Journal of Pomology and Horticultural Science*, Vol. IX, No. 2. June 1931.

In the course of this work, a very large number of cases of leaf scorch and of the type of chlorosis of plums previously shown to be due to potassium deficiency have been examined, and the chemical results obtained have demonstrated in every case that the scorched and chlorotic conditions of the plants are associated with chemical features typical of acute potassium deficiency.

Data relating to susceptibility of materials to leaf scorch indicate that resistant varieties and rootstocks may possess superior feeding powers for potassium than the more susceptible sorts.

The action of potash manures and of dung in rectifying the deficiency is clearly reflected in the chemical results, and light is thrown on problems concerning the rate of observed responses to ameliorative treatments.

EXPERIMENTAL.

The Effects of Potassium Deficiency on the various parts of Fruit Plants.

At the commencement of the investigation it was important to determine the extent to which potassium deficiency is reflected in the potassium content of various parts of fruit plants suffering from acute starvation of the element.

For this purpose samples consisting of leaves and stem portions of terminal shoots, spur leaves, bark and wood of young shoots and main stems, pulp of fruits and stones of fruits in the case of plums were examined from comparable healthy and potassium deficient plants.

Some typical results which illustrate the salient features revealed by the analyses are presented in Table I (a), (b), (c) and (d).

The data reported in I (a) are from an experiment in which apple trees, variety Stirling Castle on Malling Type I rootstock, were grown in pots in sand, some of the trees receiving a complete nutrient solution and others a nutrient solution from which potassium was omitted (6).

The data presented refer to leaves and stem portions of terminal shoots and four-year-old main stems, and show the effects of the deficiency on the contents of dry matter, ash and potash in the various parts considered.

TABLE I.

Showing the Effect of Potassium Deficiency on the Potassium Content of the various parts of Fruit Trees.

(a)

Chemical Data.	Leaves of Terminal Shoots.	Stems of Terminal Shoots (Winter Stage).*		Main Stems above graft union—4 years old.*	
		Bark.	Wood.	Bark.	Wood.
	%	%	%	%	%
<i>Complete Nutrient Series :</i>					
Dry Matter in Fresh Wt. . .	33.92	41.61	48.89	39.71	48.84
Ash in Dry Matter . . .	8.91	6.19	2.28	6.19	1.13
K ₂ O in Ash . . .	45.40	37.83	38.68	35.85	31.12
K ₂ O in Dry Matter . . .	4.046	2.342	0.8818	2.219	0.3518
<i>Potassium Omitted Series :</i>					
Dry Matter in Fresh Wt. . .	38.00	46.19	43.96	46.67	53.56
Ash in Dry Matter . . .	7.50	5.57	1.51	5.64	0.70
K ₂ O in Ash . . .	10.58	16.37	18.61	16.77	20.68
K ₂ O in Dry Matter . . .	0.7936	0.912	0.2809	0.9458	0.1448
K ₂ O in Dry Matter as % of K ₂ O in Complete Nutrient Series . . .	19.62	38.94	31.85	42.63	36.48

* Data — material during third season of experimental treatments.

(b)

Manurial Treatment Annual Spring Dressing from 1912.	Farmyard Manure at 20 tons per acre.				Complete Artificial: Sulph. Amm. 1½ cwt., Super 5 cwt., Sulph. Potash 2½ cwt.				Nitrate of Soda 1½ cwt.				Nitrate of Soda 1½ cwt. from 1912 + Sulph. Potash 2 cwt. from 1923.			
	Terminal Shoots.				Terminal Shoots.				Terminal Shoots.				Terminal Shoots.			
	Leaves. o _o	Bark. o _o	Wood. o _o	Fruit. Pulp. o _o	Leaves. o _o	Bark. o _o	Wood. o _o	Fruit. Pulp. o _o	Leaves. o _o	Bark. o _o	Wood. o _o	Fruit. Pulp. o _o	Leaves. o _o	Bark. o _o	Wood. o _o	Fruit. Pulp. o _o
Ash in Dry Matter ..	6.81	8.53	2.51	2.10	6.86	9.53	2.64	1.60	5.87	8.91	2.68	0.90	6.66	—	—	1.16
K ₂ O in Ash ..	29.05	14.11	19.04	56.30	22.52	10.06	16.10	56.50	10.73	7.49	11.91	48.40	14.77	—	—	56.2
K ₂ O in Dry Matter ..	1.98	1.20	0.48	1.18	1.54	0.96	0.43	0.90	0.63	0.67	0.32	0.44	0.98	—	—	0.90
as % of K ₂ O in Dry Matter of Complete Arti- ficials Plot ..	128.5	125.0	111.6	131.1	100	100	100	100	40.91	69.79	74.40	48.90	63.63	—	—	100

* Data on Shoots, 1927, on Fruits, 1928.

(c)

Manurial Treatment Annual Spring Dressing from 1921.	Farmyard Manure at 10 tons per acre.				Complete Artificial: Nitrate of Soda at 50 lbs. N., Super at 120 lbs. Total Phos. Sulphate of Potash at 100 lbs. K ₂ per acre.				Complete Artificial: less Potash.			
	Terminal Shoots.				Terminal Shoots.				Terminal Shoots.			
	Leaves. o _o	Stems and Petioles. o _o	Fruit. Pulp. o _o		Leaves. o _o	Stems and Petioles. o _o	Fruit. Pulp. o _o		Leaves. o _o	Stems and Petioles. o _o	Pulp of whole Fruits. o _o	
Dry Matter in Fresh Weight ..	36.20	36.00	10.95		37.20	34.40	10.65		40.25	38.80	11.07	
Ash in Dry Matter ..	8.64	5.65	3.83		7.78	5.25	3.64		8.40	4.73	2.94	
K ₂ O in Ash ..	23.28	22.55	46.30		22.78	24.34	49.00		10.04	13.44	41.55	
K ₂ O in Dry Matter ..	0.20	0.13	0.18		0.18	0.13	0.18		0.084	0.064	0.12	
as % of K ₂ O in Dry Matter of Complete Artificial Plot ..	111.1	100	100		100	100	100		46.7	40.9	66.7	

(d)

Chemical Data.	Healthy Trees.			Potassium Deficient Trees.		
	Spur Leaves. %	Fruit Pulp. %	Stones. %	Spur Leaves. %	Fruit Pulp. %	Stones. %
Ash in Dry Matter ..	11.38	3.25	0.96	6.99	2.40	0.92
K ₂ O in Ash ..	18.51	53.15	32.10	3.78	44.90	32.69
K ₂ O in Dry Matter ..	2.11	1.73	0.31	0.26	1.08	0.30
K ₂ O in Dry Matter as % of K ₂ O in Dry Matter in Healthy Trees ..	100	100	100	12.32	62.43	96.77

The chief points to be noted, which are typical of the large number of cases examined, are that potassium deficiency is reflected in a very definite way in all parts. It results in relatively high dry matter in fresh weight, low ash content and low potash content in both ash and dry matter.

The value at the bottom of each column shows the extent to which the deficiency has lowered the potassium content in each case.

Table I (b) gives data from a field manurial experiment on apple trees, variety Grenadier. The treatments, except in the fourth case, had been given for fifteen consecutive seasons before the samples of leaves and shoots were taken and for one more season before the fruits were examined. It should be noted that the trees on the nitrate of soda plot have been shown to be suffering from potassium deficiency by treating a portion of the plot with sulphate of potash as shown in the fourth case, the potash treatment having produced a marked growth response and resulted in the elimination of leaf scorch in three seasons.

The data also illustrate how farmyard manure has been effective in supplying the amount of potassium necessary to the trees, a result of which has also been obtained at other centres. (See also Table I (c)).

It will be noted from the results that potassium deficiency is clearly marked in the composition of leaves, bark and wood of terminal shoots, and in the pulp of the fruits.

The results reported in Table I (c) are from a manurial experiment on gooseberries at this Station and for which data relating to the action of the various manurial treatments on growth, cropping, leaf scorch, etc., have been previously published (4, 5).

The data given in the present instance are provided for the purpose of showing how closely results with gooseberries resemble those in the case of apples.

Table I (d) gives data in the case of a serious case of potassium

deficiency of plum trees, variety Purple Pershore, and illustrates the manner in which the deficiency is reflected in spur leaves, fruit pulp and in the stones of the fruits.

It will be clear, again, that the deficiency has affected the ash and potash contents of the leaves and fruit pulp as in the previous cases, but it will be noted that the ash and potash contents of the stones have not been appreciably altered.

Soil Relationships.

It has been previously emphasised that potassium deficiency usually occurs in the field in a patchy manner, and in examining such cases it has been usual to find that soil differences can be recognised between healthy and "scorch" areas.

In addition to comparing the soil features in these cases, it has been usual to examine the composition of comparable portions of the healthy and "scorched" trees. Since potassium deficiency in the field usually leads to the cessation of terminal shoot growth, it has been customary to compare samples of spur leaves in cases of this character, but in some cases samples of fruit pulp have also been analysed.

A very large number of cases have been investigated and, in every one, it has been found that the healthy trees were high potassium trees and the scorched trees of low potassium content, thus showing the patchy nature of potassium deficiency in the field.

Some representative cases from the bulk data have been selected to illustrate the point in Table II, and these clearly show the correlation between the soil patches and the potassium contents of the various plants.

Susceptibility of Materials.

Field observations relating to susceptibility of materials to potassium deficiency have been made in connection with classes of fruits, varieties and rootstocks.

Classes of fruits do not lend themselves readily to chemical studies of the character considered herein since opportunities of examining large numbers of varieties of different classes of fruits under comparable conditions do not normally occur, and hence conclusions relating to susceptibility of different classes must be drawn from numerous less critical instances. For this reason chemical investigations relating to susceptibility have been confined to differences exhibited by varieties and rootstocks.

A case of differential varietal susceptibility in gooseberries is shown in Table III, where the more resistant variety Whinham's Industry is compared with the more susceptible variety Careless. In this particular case the Careless bushes had failed to make appreciable growth in three years after planting, whereas the Whinham's, although exhibiting signs of potassium deficiency, measured on the average approximately 27in. to 30in. in height and spread.

TABLE II.
Showing the Relationships between Healthy and Scorch Areas and the Potassium Content of the Plants on them.

Soil Characters.	Class and Variety of Plant.	Healthy Area.			Scorched Area.		
		K ₂ O in Dry Matter.			K ₂ O in Dry Matter.		
		Leaves. %	Stems. %	Fruit Pulp. %	Leaves. %	Stems. %	Fruit Pulp. %
Keuper Marl Formation—fine sandy loam ..	Apple—var. Prince ..	1.94	—	—	0.42	—	—
Glacial Sand—coarse sand ..	Albert ..	0.69	—	0.66	0.37	—	0.42
Old Red Sandstone Formation—clay loam ..	Apple—var. Worcester main ..	2.26	—	1.39	1.33	—	1.17
Siurian—Old Red Sandstone mixture—close textured silty loam ..	Plum—var. Purple Pershore ..	2.41	—	1.41	0.40	—	0.55
Lias Clay with slight coarse sand ..	Do. ..	2.11	—	1.75	0.26	—	1.08
Drift admixture—heavy clay ..	Do. ..	1.77	—	—	0.41	—	—
River Gravel—light sandy loam ..	Do. ..	0.57*	0.61*	—	0.34	0.43	—
Glacial Sand and Gravel—coarse sand and gravel mixture ..	Gooseberry—var. Careless ..	2.90	—	—	1.66†	—	—
Lias Clay Formation—heavy clay ..	Gooseberry—var. Careless ..	—	—	—	—	—	—

* This case bushes not healthy but less affected than on "scorched area."

† Severity only very slight.

It will be noted that the Whinham's contain higher percentages of potassium in both the leaves and stem portions than do the Careless bushes, though the percentages of K_2O in the ash of both portions of the Whinham's suggest that the bushes are growing under conditions of too low potash (c.v. values, Table I (c)).

TABLE III.

Showing Varietal Effects in Relation to Potassium Deficiency of Gooseberries.

Variety.	Terminal Shoots.					
	Leaves.			Stems.		
	Ash in Dry Matter. %	K_2O in Ash. %	K_2O in Dry Matter. %	Ash in Dry Matter. %	K_2O in Ash. %	K_2O in Dry Matter. %
Whinham's Industry ..	10.37	6.17	0.64	4.73	13.82	0.65
Careless	8.90	3.86	0.34	5.20	8.39	0.43

TABLE IV.

Showing Rootstock Effects in Relation to Potassium Deficiency of Apple Trees.

Variety and Rootstock Type.	Material Analysed.	Ash in Dry Matter. %	K_2O in Ash. %	K_2O in Dry Matter. %
Worcester on Malling Type I.	Green Spur Leaves	9.41	5.29	0.50
Worcester on Malling Type V.	Scorched Spur Leaves	7.25	3.82	0.28

In Table IV the data refer to a case in which the differential effects of two rootstocks are clearly visible, the trees on Type V being obviously more seriously affected than those on Type I. At the time of collecting the samples, the foliage on the Type V trees was mostly severely scorched, whilst scorching was only present to a slight extent on the leaves on the trees on Type I. In taking the samples, leaves of healthy appearance only were collected from the Type I trees and scorched leaves only from those on Type V. This method of sampling would possibly accentuate any differences in composition in the two cases, though the samples were fairly representative of the two sets of foliage.

The values in the table show a definitely higher potassium content in the leaves from the Type I trees, but here again the percentages of K_2O in ash and dry matter suggest that the trees are suffering from severe potassium starvation.

Remedial Measures.

Examples of the effects of applying remedial measures in cases of potassium deficiency by means of potash manures and dung are illustrated in Table I (b) and (c).

The data presented in Table V are from an experiment carried out in a commercial plantation (7), in which a very marked response on gooseberries in a severe case of leaf scorch was observed as the result of two annual dressings of sulphate of potash at 4 cwts. per acre, whereas on red currants, also in a badly scorched condition, these dressings did not produce a visible reaction.

The chemical data show that the potassium content had been increased to a much greater extent in the case of the gooseberries than in that of the red currants. It should be noted that although no appreciable effect had resulted from the potash dressings on the currant bushes, the potassium content had been significantly increased.

TABLE V.

Showing the Difference in Rates of Response to Potash Manuring of Red Currants and Gooseberries.

	Red Currants.				Gooseberries.			
	Potash treated Plot.		Control Plot.		Potash treated Plot.		Control Plot.	
	Leaves. %	Stems. %	Leaves. %	Stems. %	Leaves. %	Stems. %	Leaves. %	Stems. %
Ash in Dry Matter ..	15.58	7.17	13.61	6.71	10.11	5.00	10.72	4.86
K ₂ O in Ash	13.08	10.95	6.42	7.82	23.03	27.24	4.54	6.69
K ₂ O in Dry Matter ..	2.04	0.79	0.87	0.52	2.33	1.36	0.48	0.32
K ₂ O in Dry Matter in Potash treated Material as % of Potash in Control Material ..	248.5	153.8	100	100	485.4	425.0	100	100

An interesting point is illustrated by the data in Table VI, which were obtained from an experiment on plum trees in which the trees on the potash deficient area had shown no appreciable response

following three annual dressings of sulphate of potash at a rate of 3 cwts. per acre.

In the fourth season certain of the trees on the plot were sprayed with a 1 per cent. solution of sulphate of potash at intervals of approximately ten days throughout the growing season in addition to receiving a further spring dressing of sulphate of potash as in previous years.

TABLE VI.

Showing the Effects of 1 per cent. K_2SO_4 Spray on Plum Trees, variety, Purple Pershore, over one season, on composition of Foliage and Fruit.

	Healthy Green Trees.		Potash Deficient Trees—Sprayed + K_2SO_4 manure.		Potash Deficient Trees—Unsprayed + K_2SO_4 manure.	
	Leaves. %	Fruit Pulp. %	Leaves. %	Fruit Pulp. %	Leaves. %	Fruit Pulp. %
Ash in Dry Matter ..	9.97	2.60	6.35	—	4.83	2.20
K_2O in Ash ..	22.69	47.90	20.94	48.10	11.37	33.60
K_2O in Dry Matter ..	2.26	1.25	1.33	—	0.55	0.74

The spraying treatment produced obvious improvement in foliage and fruits, whilst the further manurial dressing did not result in visible response.

The analyses of the leaves and fruit pulp presented in the table show that the spraying treatment was effective in raising the potash content of the portions examined to a level well above that of the trees receiving only the manurial treatment. It is also of interest to note that the data for the "manured only" trees suggest that the manurial treatment has been ineffective as a means of remedying the condition of potassium deficiency.

DISCUSSION.

The results reported in the various sections of this paper show the value of making chemical analyses of various portions of fruit plants in investigating problems of potassium deficiency.

Deficiency of the element is reflected in the leaves, in bark and wood portions of branches and stems and in the pulp of fruits, and by studying the potassium status of these, the condition of the plants can be gauged and the effects of ameliorative treatments followed.

The data relating to soil relationships show clearly the patchy distribution of soil areas conducive to potassium deficiency and illustrate the value of such symptoms as leaf scorch for diagnostic purposes.

It is clear, from the data in Tables III and IV, relating to susceptibility of varieties and rootstocks, that though the differences exhibited are significant they are not of an order sufficiently large to solve the problems of potassium deficiency solely by the choice of resistant varieties and rootstocks. Even in notable cases of resistance, the potassium content has been much below the point produced by adequate manurial treatment.

Chemical examination of the plant is obviously of great value in experiments in which the results are not easy of interpretation, as in the cases of lack of response to manurial treatment such as are illustrated in Tables V and VI.

In the former case the chemical results indicate that the two types of plants considered respond at different rates to the treatments given, and in the latter it is apparent that the ordinary method of applying potash manures is not an effective means of obtaining a response in a reasonable period under the prevailing conditions.

Similar cases of lack of response to potash manuring in cases of potassium deficiency of prune trees have been recorded in America (1). It seems probable from the evidence that the lack of response in such cases is due to the applied potash being unable to penetrate to the root systems owing to the absorptive properties of the soils concerned.

SUMMARY.

1. An account is given of chemical investigations which have been carried out in connection with problems relating to potassium deficiency of fruit trees.

2. It is shown that deficiency of potassium produces definite effects on the composition of various portions of the plants.

The deficiency is reflected in the leaves, shoots, main stem and pulp of fruits, but not in the stones of plums.

Percentage dry matter in fresh weight is usually increased, and ash content and potash content in ash and in dry matter are greatly decreased.

3. Soil areas conducive to potassium deficiency occur in patchy fashion in the field. They can be distinguished either by symptoms such as leaf scorch or chlorosis, or by chemical examination of the trees.

4. Observed differences in susceptibility to leaf scorch of varieties and rootstocks are accompanied by differences in potassium content of the plants concerned, but the chemical differences are too small to suggest that potassium deficiency in the field can be overcome entirely by the use of resistant materials of the nature examined.

5. The action of dung and potash manures in rectifying potassium deficiency is reflected in the composition of the treated plants. The analysis of appropriate portions of plants provides valuable information in attempting to interpret the responses following the application of remedial treatments.

In cases where negligible responses were obtained from potash manures, it is shown that the plants had failed to take in adequate amounts of potassium from the dressings applied.

ACKNOWLEDGMENTS.

Messrs. D. A. Osmond, V. L. S. Charley and J. O. Jones have been responsible for some of the analytical work concerned in these investigations, and the writer gratefully acknowledges their valuable co-operation.

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THE VALUE OF YOUNG BAT WILLOW TREES.*By H. P. Hutchinson.*

Bat willows have a market value only at the time of their maturity which may be from 12 to 25 years from the time of planting. As young immature growing trees and according to age, they possess potential value which it is frequently necessary to ascertain in cases where changes of ownership occur or where claims are made by the owner for damage sustained from stock, fire or other causes. Hitherto, valuations appear to have been made from eye judgment, values being arrived at from the general appearance of the trees, a knowledge of their ages and by comparison made with other bat willow trees in the immediate neighbourhood.

The principal factor in the determination of the value of young willow trees being rate of growth, monthly records of growth were commenced on six cricket bat trees, growing on the Willow Trial Beds of the Research Station, Long Ashton, in 1928. The growth figures so obtained, together with the current price of cricket bat timber, enable their values to be calculated at any time during this period.

The trees were planted as long unrooted sets of 4 years growth on April 3rd, 1928. Girth measurements were taken immediately after planting and afterwards at monthly intervals during the growing periods of the year at distances of about 5 feet from ground level. The places of measurement were permanently marked with India ink as bands girdling the stems. The following figures have been extracted from these records.

TABLE I.
Girth Measurements in Centimetres.

Tree.	April 1928.	Nov. 1928.	Nov. 1929.	Nov. 1930.	Nov. 1931.
No. 1	13.3	15.6	19.4	24.5	34.4
" 2	13.5	15.5	19.6	24.1	31.9
" 3	14.1	15.8	21.3	26.7	35.2
" 4	14.1	15.4	20.5	25.8	34.4
" 5	12.4	15.2	23.2	33.5	46.0
" 6	14.9	16.7	24.5	35.5	48.3

The increases in growth are satisfactory since, if maintained at these rates, the time required for the trees to attain a girth of 48 inches would be as follows :—

Tree No. 1	22 years.
2	27
3	22
4	23
5	14
6	14

By approximate calculations made on these figures and a length of bole of 10 feet the annual volumes are as follows :—

TABLE II.
Volumes in Cubic Inches.

Tree.	April 1928.	Nov. 1928.	Nov. 1929.	Nov. 1930.	Nov. 1931.
No. 1	252	344	544	861	1693
„ 2	261	340	550	818	1454
„ 3	283	355	651	1022	1775
„ 4	283	340	600	951	1710
„ 5	219	331	770	1585	3017
„ 6	317	397	861	1800	3357

The values given in the following table are calculated from the volumes given in Table II, and the price of good quality cricket bat timber (21/- per cubic foot).

TABLE III.
Values of the Trees.

Tree.	April 1928.	Nov. 1928.	Nov. 1929.	Nov. 1930.	Nov. 1931.
No. 1	3/- per Set.	4/3	6/8	10/6	20/7
„ 2		4/2	6/8	10/-	17/8
„ 3		4/4	7/10	12/6	21/7
„ 4		4/2	7/3	11/7	20/9
„ 5		4/-	9/4	19/3	36/8
„ 6		4/9	10/5	21/10	40/9

These values apply to young trees which are making satisfactory growth and are free from major faults. In cases where defects are present such as crookedness of butts, wounds and diseased patches, deductions in value from the above figures should be made. Similarly deductions should be made where soil and other conditions are adverse to satisfactory growth, even to the limit of assigning no value to trees whose growth records show that they would never make suitable bat timber.

**CARABID BEETLES AS STRAWBERRY PESTS IN THE
CHEDDAR DISTRICT.***

By C. L. Walton and H. G. H. Kearns.

INTRODUCTION.

From time to time there have been complaints of serious injury by Carabid Beetles to the ripening strawberry crop in the Cheddar district. In 1927, for example, these pests were troublesome, and some tentative inquiries were made in the late autumn of that year; and in 1928 further observations and some small field trials were carried out. Early in 1929, a detailed investigation was commenced and continued until the end of the season in 1930, and a brief summary of the results is given in this article.

Thanks are due to various strawberry growers for their co-operation and to the Colston Research Society for providing a grant towards the expenses of one of the investigators.

A definite attempt was made (1) to determine the species of beetles actually responsible for the injuries, and the type and degree of such damage, (2) to investigate the life histories of such species as proved to be harmful, and (3) to discover means of prevention or control.

Injuries occurred during the season of 1928, but they were more limited and sporadic in character than in 1927; they became slight in 1929 and were almost absent during 1930. As a result, therefore, although the data required under the above headings (1) and (2) were secured to a large extent, progress with control work was greatly hampered and extensive series of trials were abortive, more especially during 1930. The probable reasons for this will be explained below.

The principal type of injury consists of the cracking and removal of the seeds of the berries when they are ripe or nearly so. This injury spoils the appearance of the fruit, rendering it unsaleable, the berry becoming soft and discoloured and finally shrivelling. On occasion green fruit is also attacked, proper development being prevented. Other forms of damage also occur and are described below.

Distribution and Amount of Injury.

The main type of injury has long been known and described,

* Reprinted from the Journal of the Ministry of Agriculture, July 1931, by kind permission of the Controller of H.M. Stationery Office.

and was correctly attributed to Carabid Beetles, both in this country and on the Continent. Although these beetles are abundant everywhere, serious injuries are only reported from certain districts. During the period of this investigation, severe damage was recorded in the Eastern counties; a few serious outbreaks occurred in Kent, and limited outbreaks were reported from Hants and Devon. The amount of damaged fruit may reach 70 per cent. of the crop, whilst injuries of 50 and 60 per cent. are frequently reported. In the Cheddar district, the damage appears to be specially severe in rows of strawberry plants near hedgerows and headlands. If picking time of the earliest fruit coincides with the optimum climatic conditions for the Carabid Beetles, the financial loss becomes considerable. A marked feature of these attacks is their discontinuity and sporadic distribution. The beds affected in one year may be free from attack during the following season, whilst a neighbouring bed—hitherto free—may be ravaged; one part of a bed may be attacked this season, and another part next year. At first sight these peculiarities appear most puzzling.

The Beetles Causing the Injuries.

The beetles causing these injuries belong to the family *Carabidae*, often known as "Ground Beetles." The members of this family are numerous and widely distributed, occurring in soil, under stones, moss, bark, etc. They are active, generally dark or metallic in colour, and as a rule are carnivorous in habit, although certain species (including some of those now under discussion) have been recorded as damaging plants, including beet and cereals. The larval stages are likewise active and predaceous. Numerous species occur on strawberry beds and, in the course of the observations in the Cheddar district, some thirty were obtained from the trap pots utilized. Many of these had clearly nothing to do with the injuries and others were scarce. Six very abundant species, however, were suspected or had previously been implicated more or less surely, and these were selected for observation and investigation.* The chief culprit is the species scientifically known as

* The following are the scientific names of the six species referred to:—(1) *Ophonus pubescens* Ml. (*Harpalus ruficornis* F.); (2) *Abax ater* Vill. (*striola* F.); (3) *Pterostichus madidus* F.; (4) *Pterostichus vulgaris* L.; (5) *Pterostichus cupreus* L.; (6) *Nebria brevicollis* F. The first four are shown in Figs. 1 to 4, respectively; the last two, although sometimes present on the beds in large numbers, have not been found to be injurious. *Abax ater* has only once caused injury in the writers' experience (under controlled conditions). It is a large insect, $\frac{1}{2}$ to $\frac{3}{4}$ in. in length, of a uniform shiny black; it can be distinguished by the quadrangular thorax, which has sharp angles.

Ophonus pubescens (*Harpalus ruficornis*) and, as far as can be ascertained, it is responsible in the main for the injuries complained of. This insect, which it is proposed to call the Strawberry Seed Beetle, is $\frac{1}{2}$ to $\frac{3}{8}$ in. in length and may be recognized by the greyish-golden hairs with which the wing-covers (elytra) are covered, and by the red-brown legs (Fig. 1). Two other species (*Pterostichus madidus* and *P. vulgaris*) may also cause quite serious damage of a different kind by attacking the flesh of the berries, in which they eat holes, often of considerable size and much resembling the work of slugs and certain birds. Both are shining black beetles, about $\frac{1}{2}$ to $\frac{3}{8}$ in. in length, very similar in general appearance (Figs. 2 and 4, respectively). There is no evidence that they attack the seeds or cause blemishes similar to those due to the activities of the Strawberry Seed Beetle.

The types of injury are shown in Figs. 5 to 8. These were obtained by potting up strawberry plants bearing ripening fruits in cages in the insectary at Long Ashton during each season. Injuries were readily produced by beetles introduced into the cages from the affected fields.

This account of the kind of damage done and of the beetles concerned refers to the Cheddar district, and it is possible that other species may be associated with injuries to fruits in other districts.

Life Histories and Habits of the Beetles.

The life histories of the species described have been investigated during the course of this work and the main features have been elucidated. Considerable trouble was encountered in regard to the Strawberry Seed Beetle, which proved difficult to rear under laboratory conditions, and its life cycle differs somewhat in time from that of the three others. In general there is considerable agreement in respect of habits, food and reaction to varying environments.

The injurious species are mainly nocturnal in habit and prefer to hide in the soil, amongst weeds, under stones, etc., by day, particularly during bright weather. Further, they dislike drought conditions and bury or hide themselves during such periods. They appear to be most active on the surface during warm, damp periods, and the greatest amount of injury seems to occur then. Thus, it appears that when dry weather (and dry surface soil) is followed by a reasonable amount of rain during the fruit-picking period, an

attack is likely to result. The ripening period in Cheddar usually extends from the end of May to early July. A comparison of weather records with the history of beetle damage during the past four years strongly supports the above observations. The ripening periods of 1927-30 have shown decreasing rainfall and the amounts of crop injury have been correspondingly reduced.

The female beetles lay eggs in batches of 10 to 15 on the surface of damp soil or within burrows they have made, the eggs of the Strawberry Seed Beetle being the largest and least numerous. Adults are most abundant from June to October. The larvae are elongate in form, are very active and generally feed on various small creatures in the soil as long as suitable weather and soil conditions allow. It has, however, been found that a mixed animal and vegetable diet is often preferred, and this is particularly so with the Strawberry Seed Beetle. They pass through three stages (or instars) during their life history and are very intolerant of dry conditions. Most are in their third stage by January, though the Strawberry Seed Beetle does not reach this stage until a good deal later.

Numbers of adults overwinter, either deep in the soil (more particularly in worm holes and in the vicinity of plant roots) or in banks, hedges or turf heaps. It does not seem (about Cheddar) that many pass the winter in the soil beneath the fields, the majority going to the banks surrounding the small fields so typical of the district. They avoid decomposing sodden rubbish such as is frequented by woodlice. In spring, the hibernated and newly emerged adults again become active, and mating and egg-laying proceed.

Control Measures.

Trapping.—The usual method employed against these pests is that of "trapping." This is frequently performed in a haphazard and perfunctory way, and consists in putting down in the beds a number of jars of various sorts and sizes into which beetles of all kinds fall at hazard. In some cases "baits" of liver or other offals may be added. It is obvious that great numbers may be caught by this means, but there seems little evidence that it is effective in reducing the beetles sufficiently to prevent or minimise the damage done.

With the object of obtaining definite evidence, three plots—all having a history of previous damage—of 1/10th acre each, were selected in 1930, and 45 two-pound jars per plot were set in the

earth at regular intervals, with "control" (untreated) plots alongside and between them.

The total catches were removed at fairly regular intervals between March and November, the beetles being identified, counted and tabulated. Interesting data were thus obtained as to sequence, relative abundance, etc., of the harmful (and other) species, but the main object was not attained, since no attack developed on either the "trapped" or "control" plots. Further experiments are needed to determine whether trapping provides a reasonable method of control.

Dressings.—*Naphthalene* (in various forms) has been used to a considerable extent, generally broadcast amongst the ripening crop. Several growers have claimed that this deterrent has had the desired effect in preventing attack, and an endeavour was made during 1929 and 1930 to investigate these statements. Here again no definite evidence was obtainable owing to the non-appearance of injuries on either treated or untreated plots. Further, on most of the plots where the growers claimed success, the dressings were applied coincidentally with the onset of dry conditions.

Sodium Fluosilicate.—Small plots were dressed with this dust after attacks had commenced in 1928, and injuries ceased on these areas although continuing on the untreated portions. Unfortunately, the dust injured the ripening fruits. Further experimental dressings in subsequent years, put on before the ripening of the crop, were vitiated (as in other experiments) by absence of attacks, but no apparent damage was done to flowers, immature fruit, runners or foliage, which were heavily dusted during the dry conditions of 1930.

Pyrethrum.—Sprays of varying strengths applied to badly attacked plots in 1928 showed no reduction in injury. Neither fruit nor foliage was damaged by the spray.

Preventive Methods of Control.

It seems clear that definitely hopeful results are obtainable by preventive measures, and attention is drawn to the following points which have been noted during the course of the investigations:—

- (1) Removal of shelter in which beetles can either overwinter, or find harbourage during the daytime, or during drought in the vicinity of the strawberry beds. This includes—
 - (a) banks of earth from which beetles certainly emerge in spring;
 - (b) heaps of earth or sods, which provide shelter for great numbers of beetles by day and during dry

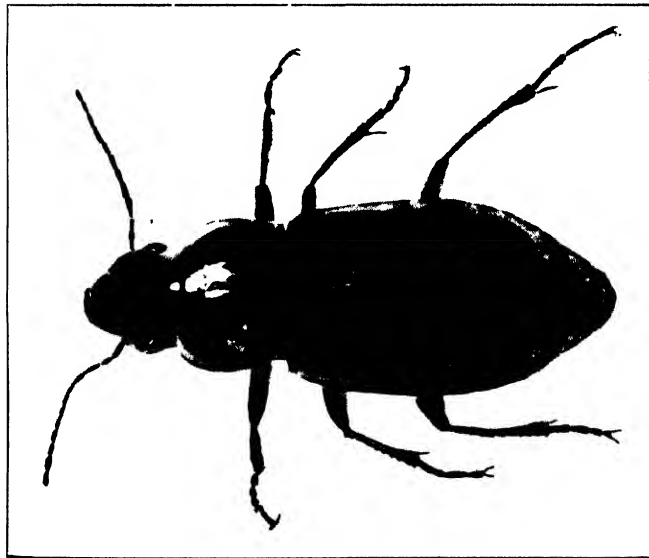


FIG. 1.—The Strawberry Seed Beetle (*Ophonus pubescens*).
CARABID BEETLES AS STRAWBERRY PESTS.

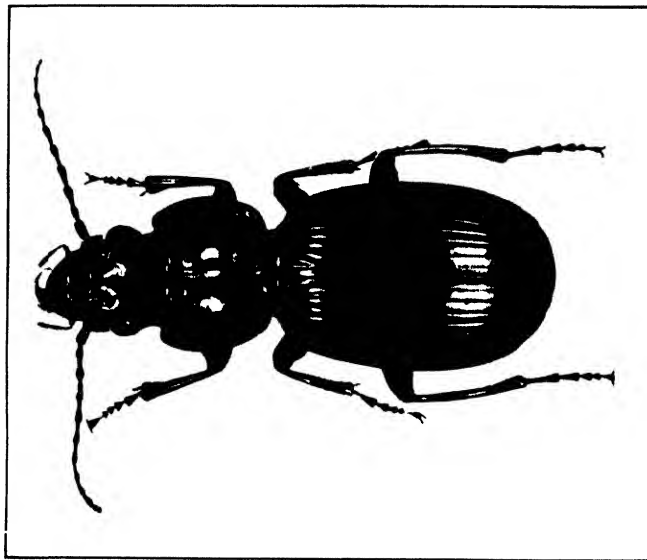


FIG. 2.—*Pterostichus madidus*.

By kind permission of Controller H.M. Stationery Office.

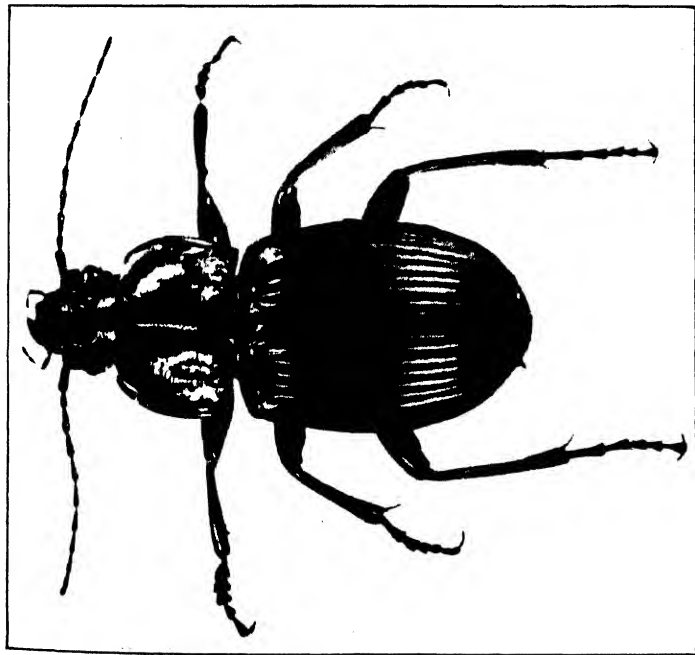


FIG. 3.—*Abax ater* (*strida*).

CARABID BEETLES AS STRAWBERRY PESTS.

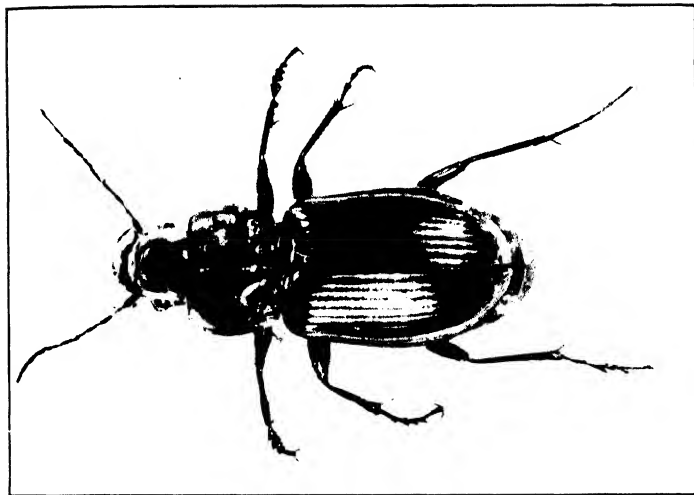


FIG. 4.—*Pterostichus vulgaris*.

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FIG. 5.—Undamaged fruit.

FIG. 6.—Damaged by the Strawberry Seed Beetle (*O. pubescens*).

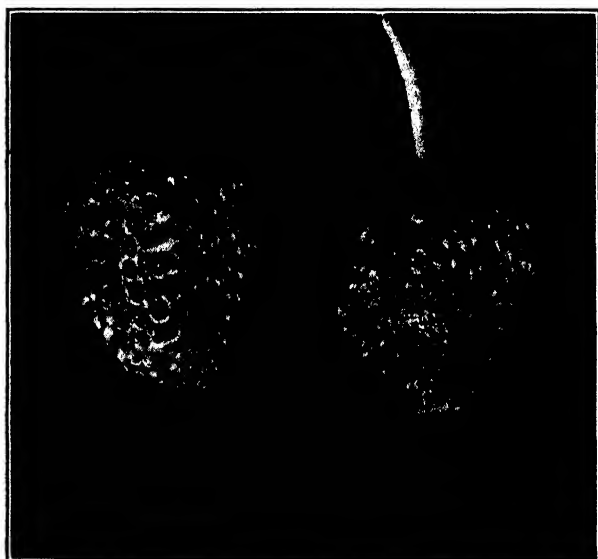
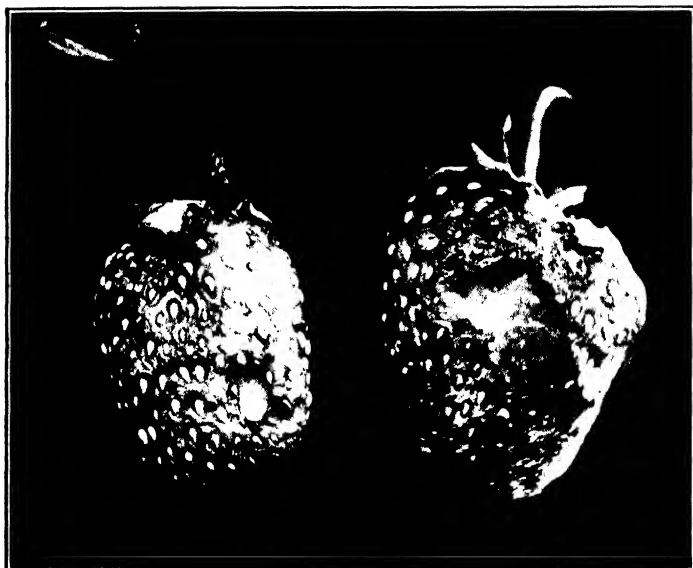


FIG. 7.—Slightly damaged by *Abar ater*.

FIG. 8.—Severely damaged by *Abar ater*.

CARABID BEETLES AS STRAWBERRY PESTS.

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FIGS. 9 and 10.—Damage by *P. madidus*.



FIGS. 11 and 12.—Damage by *P. vulgaris*.

CARABID BEETLES AS STRAWBERRY PESTS.

By kind permission of Controller H.M. Stationery Office.

weather. (In one particular case, injuries were severe on either side of a long mound of sods, and the presence of the Strawberry Seed Beetle within it was proved; on removal of the mound, the injuries ceased. Damage is frequently most serious on headlands and near banks and hedges): (c) weeds, which are sometimes allowed to accumulate as the crop ripens, undoubtedly conserve moisture and provide shelter by day, as do rough headlands and field corners.

- (2) Clean cultivation not only ensures the absence of sheltering weeds, but a fine tilth maintains a layer of soil too dry for beetle larvae to live in, and unsuitable in moisture content for the adult insects. It is believed that differences in moisture content probably play a considerable part in bringing about concentrations of beetles on certain fields or parts of fields.
- (3) Observation suggests that a judicious use of poultry can do much to keep down the beetle population, particularly on the headlands, and can, in some instances, be utilized as a barrier to incoming beetles from rough land, banks, etc., although it must be remembered that the Strawberry Seed Beetle is able to fly.

SUMMARY.

Four species of Ground Beetles have been proved to be the cause of injuries to ripening strawberries at Cheddar and elsewhere. One species—*Ophonus pubescens* (here called the Strawberry Seed Beetle)—is responsible for the worst type of damage, namely, the removal and ingestion of the seed contents, thereby ruining the fruit. The other species either cause less marked injuries, or gnaw holes in the fruit.

These various types of damage have been produced under controlled conditions, and are figured in this article. The life histories of these beetles have been worked out. Overwintering of both larvae and adults is shown to take place, to a considerable extent, chiefly in hedges and banks.

Dry conditions appear to be inimical to the beetles in both the larval and adult conditions.

Attempts to test out the value of trapping as a means of reducing beetle populations and of naphthalene as a deterrent were both vitiated by absence of injuries, largely due to drought conditions.

Injury can probably be minimised by the removal of shelter, by clean cultivation and the judicious use of poultry.

THE CONTROL OF CAPSID BUGS ON BLACK CURRANTS.

FIELD EXPERIMENTS IN 1931.

By L. N. Staniland and C. L. Walton.

An account of field trials on the control of capsid bugs on black currants conducted during 1930 appeared in the *Journal of the Ministry of Agriculture* in August of that year, and detailed the successful use of a winter wash prepared from a mixture of high boiling tar oil and a heavy paraffin, used at a concentration of 10%.

These trials, which were carried out at two centres, showed a practically complete control of Capsid Bugs, but could only be regarded as of a preliminary character to be followed by further and more extended trials. The latter were arranged and carried out during the following year, and the present paper deals with them.

During previous years, a series of field trials had shown an ever-increasing degree of control. In those of 1928-29, the use of the improved type of tar-distillate wash at 10% concentration resulted in a 70% infestation being reduced to one of 20%, whilst, as described in the account of the previous year's trials, in 1929-30, a tar oil-heavy paraffin wash at the same strength reduced infestations of 100% of bushes and 30% and 60% of leaves respectively to a "trace." The 1931, programme was designed to furnish a more complete and comprehensive trial of the latter wash and to provide evidence as to the relative toxicities and required concentrations of the respective constituents. It also included trials of certain cheaper oils with a view of reducing the cost of spraying.

The work was carried out as heretofore with the aid of a special research grant from the Ministry of Agriculture and Fisheries.

Thanks are due to Dr. H. G. H. Kearns (the present Advisory Officer) for his help in gathering some of the data in the absence of one of the writers (C.L.W.).

Materials.*

(1) A neutral tar-distillate (boiling between 280° and 360°F.) obtained from a horizontal retort tar.

* We are indebted to Messrs. Shell Mex Ltd. for kindly supplying the heavy paraffin oils, and to the Pearson Antiseptic Co. Ltd., for the Blast Furnace Oil.

(2) Heavy paraffins, having the following characteristics :—

	Specific Gravity. (60°F.)	Viscosity. Redwood No. 1 at 70°F.	Iodine Value.	Flash Point (open).
(a) A "White Oil" No. 105 (P2)	0.860	125	1.1	310°F.
(b) A "Half White Oil" (No. 1301) cheaper oil	0.875	160	7.6	310°F.

(3) A blast furnace oil.

The last-named is not at present a recognised commercial product. The fraction was collected between 280° and 360°F., and was stated to contain 7% of tar acids.

All the washes were made and used in the form of "two solution" washes, *i.e.* the requisite amount of caustic soda solution for the completion of emulsification was added during the course of mixing.

The emulsifier employed was Agral W.B.

The washes were all made up from the raw materials at Long Ashton Research Station under the supervision of the Biochemist, Mr. F. Tutin.

Trial Centres.

The trials were conducted at the following two centres, particulars of which are appended.

CENTRE I.—County Experimental Station, Perdiswell, Worcester.

This centre was also used in the 1930 trials and was included for demonstration as well as trial purposes. The same set of bushes served for the trials and the presence of the control bushes left the previous year ensured a heavy reinfestation of the whole, rendering them suitable for further experimentation.

The following varieties of black currants were included in the plot :—Goliath, French, Baldwin, Seabrook's Black and Edina.

The total number of bushes in trial was 208.

Both species of Capsid Bug (*P. rugicollis* and *L. pabulinus*) were present.

CENTRE II.—Spring Hill, Fladbury, Worcestershire.

Variety : Baldwin.

The total number of bushes in trial was 1,370.

Treatments and Results.

CENTRE I.—The treatments carried out were :—

Plot 1. Tar oil-heavy paraffin wash (two-solution) in equal proportions at 10% strength. The form of heavy paraffin used was P2 (white oil), the same as in 1930. Eighty bushes were utilised (50 were sprayed on 13th January, 1931, and 30 on 22nd January, 1931).

Plot 2. Unsprayed. 124 bushes sprayed with a 5% solution of a proprietary tar-distillate wash on 22nd January, 1931, for Aphis control.

The applications were made during fine, dry weather.

The spray was applied by means of a "headland" pump at a pressure of 100 lbs. per square inch.

The results were examined on July 2nd, 1931, and proved to be as follows :—

Plot 1. Control had been complete, but by the date of examination, slight secondary attacks were just commencing on a few tip leaves, on bushes adjacent to the control plot and a boundary hedge. These had unquestionably served as sources of infection.

Plot 2. All bushes attacked and an average of 40% of leaves were affected.

The clear-cut difference between the two plots was so marked and decisive that no detailed comment of the results is required. The spray fluid used had obviously achieved the object of complete destruction of the capsid eggs on the sprayed bushes, as in the previous year's trial at this centre.

CENTRE II. The treatments carried out were :—

<i>Plot.</i>	<i>No. of bushes.</i>
1. High boiling neutral tar-oil at 10% strength	120
2. Blast furnace oil at 10% strength	80
3. Heavy paraffin oil (half white) at 5% strength	190
4. Unsprayed I.	80
5. Heavy paraffin oil (white) at 5% strength	90
6. Neutral tar oil-heavy paraffin (white), mixed in equal proportions, at 10% strength	160
7. Neutral tar oil-heavy paraffin (half white), mixed in equal proportions, at 10% strength	180
8. Neutral tar oil-heavy paraffin (white), mixed in proportions 25 tar oil, 75 paraffin, at 10% strength	140
9. Neutral tar oil-heavy paraffin (white), mixed in equal proportions, at 6% strength	90
10. Neutral tar oil-heavy paraffin (half white), mixed in equal proportions, at 6% strength	90
11. Neutral tar oil-heavy paraffin (white), mixed in proportions 25 tar oil, 75 paraffin, at 6% strength	70
12. Unsprayed II.	80
Total	<u>1370</u>

The applications were made on February 11th and 12th, 1931, by means of a power sprayer working at 200 lbs. pressure. On the former date, there was a strong breeze and weather was dry up to 1 p.m., when rain suddenly stopped work for the day. By that time Plots 1—5 had been sprayed. On the 12th, there was a strong breeze but the weather was fine and sunny and the remaining plots were sprayed without interference.

The figures are estimated percentages of leaves marked by capsid bugs. These were arrived at by eye estimations* on the part of the authors acting independently. Differences of opinion—these were very few and of minor importance only—were adjusted by a final conjoint examination.

The results were examined on two occasions, May 19th and July 1st respectively. The details are given in the appended table:—

Plot.	Treatment.	Percentage of leaves marked by Capsid Bugs.	
		Examination of May 19th.	Examination of July 1st.
1.	Tar oil at 10% strength	5—10	70
2.	Blast furnace oil at 10% strength ..	10—15	60
3.	Half white oil at 5% strength	Trace	5—10
4.	Unsprayed I.	20—30	60—70
5.	White oil at 5% strength	1—2	10
6.	Tar oil + white oil (50-50 mixture) at 10% strength	Trace	Trace—2
7.	Tar oil + half white oil (50-50 mixture at 10% strength	Trace	2—5
8.	Tar oil + white oil (25-75 mixture) at 10% strength	2—3	5—10
9.	Tar oil + white oil (50-50 mixture) at 6% strength	5—10	25—30
10.	Tar oil + half white oil (50-50 mixture) at 6% strength	5—10	50
11.	Tar oil + white oil (25-75 mixture) at 6% strength	15—20	30—40
12.	Unsprayed II.	60—70	90

Aphids were present in small numbers, but it is interesting to note that they were found only on the unsprayed blocks and on those plots sprayed with the respective heavy paraffin oils, used by themselves. All other washes used gave complete control of this pest.

* The method of eye estimation has been tested by the authors in previous trials and the results compared with those of actual counts. A high degree of accuracy is possible when used by a trained observer.

No damage to buds or foliage, by the sprays used, was noted during the progress of the experiments.

The following features of the results may be noted :—

1. The wash consisting of neutral tar oil, used by itself at 10% strength, although giving some control of Capsid Bugs, was not sufficiently effective for commercial use.

2. The blast furnace oil gave only slightly better results than the neutral tar-oil.

3. The white and half white oils used by themselves at 5% strength gave satisfactory reductions in the amount of Capsid Bug damage, and there was close agreement in the results obtained with each of them.

4. The tar oil-heavy paraffin mixtures, used in equal proportions, at 10% strength, gave excellent controls of Capsid Bugs ; when used at 6% strength the results were not of a satisfactory character.

5. The tar oil-heavy paraffin mixtures, used in the proportions of 25 parts of tar oil to 75 parts of the heavy paraffin and at strengths of 10%, were not so satisfactory as the 50—50 mixtures. At 6% strength, these 25—75 mixtures were far from satisfactory.

Since the general trend of the results of the trial as a whole indicates the heavy paraffin constituent of the spray to be the main toxic agent in the case of the Capsid eggs, the apparent falling off in toxic power on increasing the percentage of this constituent from 50 to 75 is unexpected. No explanation will be attempted here, further investigation being required to determine if the result is confirmed or shown to be a chance one to which field trials of this description are necessarily subject.

6. The figures for Plots 1—5 suggest that the rain which followed so closely after spraying in these cases had relatively little, if any, detrimental effect on the results. This is contrary to general experience with ordinary tar oil sprays.

7. The paraffin oils used alone at 5% strength, while giving satisfactory control of capsid bugs, do not control aphids. This should be specially noted by growers.

CONCLUSIONS.

1. The experiments described confirm decisively the results of 1929-30, and indicate that mixtures of equal proportions of tar oil

and heavy paraffin oil, made up at 10% strength, gave a practically complete control of Capsid Bug on black currants.

2. Although the paraffin oils used alone at 5% strength were effective in giving satisfactory control of Capsid Bugs, it was necessary to use the tar oil-heavy paraffin mixture where aphid control was also desired.

3. Price considerations may usefully be taken into account in determining the type of heavy paraffin oil employed, the cheaper half-white oil having proved as effective as the more expensive white oil.

PROGRESS REPORT ON VEGETABLE DISEASES.—III.

By L. Ogilvie and B. O. Mulligan.

The following report deals with the further progress made in the season 1930-31 towards the elucidation and control of diseases of vegetables in the Bristol Province, with special reference to the Evesham and Cheltenham areas, and is a continuation of the reports published in the two previous years (3, 4). In the course of the work special emphasis has been laid on the control aspect. When the investigation of certain of the diseases is completed detailed papers will be published. The first of these, dealing with "halo blight," a bacterial disease of dwarf beans, is now in course of preparation.

ASPARAGUS DISEASES.

Violet Root Rot of Asparagus (Rhizoctonia Crocorum, ? = Helicobasidium purpureum). A continued survey of the asparagus beds in the Evesham area has revealed only one more affected plot, and this, like the five others previously discovered, is only several yards in diameter.

In one case concerning which reliable information was obtained, a rotation of seven years was insufficient to free the infected ground from the fungus. In the succeeding asparagus crop, signs of the disease appeared in the third year after planting (and first year of cutting), when the shoots commenced to turn yellow. As reported last year *Rumex obtusifolius* may become infected and may serve to carry over the disease.

In view of these aspects of the problem, it was resolved to attempt

partial sterilisation of the affected soil by means of certain chemicals on the lines on the experiments previously carried out by Barker and Gimingham (1). The following chemicals were applied : formalin, copper sulphate, cresylic acid and chloride of lime. The treated ground is to be planted up in 1932 with young asparagus plants.

Attempts to infect carrots and parsnips grown from seed in sterilised soil with pure cultures and with pieces of diseased roots have as yet been unsuccessful.

Zopfia rhizophila. As reported last year *Zopfia rhizophila* was found on certain plants from the Evesham area. In 1931 another infected locality was discovered. Although the stems and foliage showed premature yellowing, the perithecia of the fungus were found only on dead roots and were markedly superficial.

Attempts to culture the fungus were unsuccessful. Pieces of infected roots were added to three healthy plants growing in sterilised soil, but no infection was observed after the lapse of one year. There is as yet, therefore, no proof that *Zopfia rhizophila* is parasitic.

References to previous literature on the subject will be found in a recent note in the "Gardeners' Chronicle," by Salmon and Ware(8).

DISEASES OF DWARF (FRENCH) BEANS.

Bacterial Disease. This disease was recorded for the first time in England in last year's report. Surveys made this year in the Evesham area have emphasised the serious and widespread nature of the disease. Of the varieties commonly grown in the area, "Canadian Wonder," "Early Prolific" and "Masterpiece" are all highly susceptible.

Laboratory work on the causal organism has proved its identity with *Bacterium Medicaginis* var. *phaseolicola*, which is now known to occur in Germany, Holland and Australia, besides the U.S.A., from which it was first described. A full account of the cultural characteristics of the organism and the symptoms of the disease on the plant will be given elsewhere.

Our field experiments have shown that the disease may be checked by roguing, if this is carried out soon after it makes its first appearance in the "halo blight" stage. This is especially the case when the first occurrence of the disease is localised.

Our pot experiments have shown that seed from infected pods may produce diseased plants and, from a consideration of many

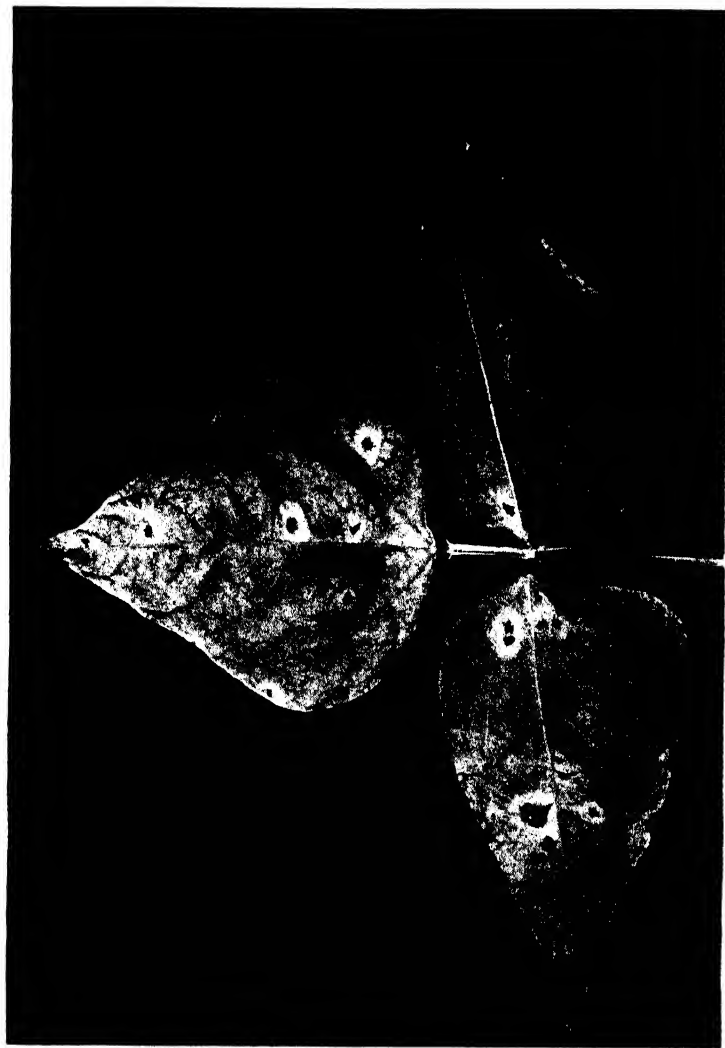


PLATE I.
"Halo blight" of Dwarf Beans. Typical "halo" leaf spots.



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.

PLATE II.

"Halo Blight" of Dwarf Beans.

cases of infection in the field, we have come to the conclusion that ground which has borne diseased plants may not necessarily bear infected plants in the following season and that most of the field infection arises from infected seed.

Attempts were also made to control the spread of the disease in its early stages by dusting with copper-lime dust, but no appreciable effect was observed in comparison with undusted plots.

The chief hope of control appears to be in the use of resistant varieties and, as our trials in this direction are of some practical interest, they are described here in more detail.

For the purpose of the trials a piece of land was used which had borne a severely infected crop in 1930, and our thanks are due to Mr. W. J. Newman, of Hinton Cross, near Evesham, who supplied both ground and labour for these trials.

The arrangement of the varieties in the rows was as follows :—

1	2	3	4	6	8	10	13	14	18	20	21	22	23	25	26	27
				5	7	9	11		15	19				24		
							12			16						
										17						

The names of the varieties to which the above numbers refer are given in Table I.

The seed was sown in mid-May, Nos. 18–27 being put in a week later than the others ; the ground for Nos. 1–17 inclusive received a dressing of hoof and horn, but otherwise no manures were applied throughout the season. The beans were grown between strawberry rows, and the soil is a sticky clay.

The seeds were obtained from the following sources, and to each of these firms we are indebted for their supply :—Messrs. E. Benary, Erfurt, Germany ; W. Atlee Burpee Co., Philadelphia, U.S.A. ; Carter's Tested Seeds Ltd., Raynes Park, London, S.W. ; J. L. Clucas, Ltd., Ormskirk, Lancs. ; Chas. Sharpe & Co., Sleaford, Lincs. ; J. C. Wheeler & Son, Gloucester ; and Yates & Sons, Ltd., Evesham. Dr. W. H. Burkholder, of New York, also sent us samples of three varieties.

Different quantities of seed, ranging from one quart downwards, necessitated different lengths of rows. It will be noted in the above diagram that the majority of the varieties were grown in adjacent rows, in a few cases more than one variety occurring in a row.

The average number of plants per yard with thick sowing and good germination is ten, but with the majority of varieties seven or eight was a more usual number.

The results of the trial are given in Table I.

TABLE I.

	<i>Variety.</i>	<i>Length of Row. yds.</i>	<i>1st Count 2nd Count 3rd Count (29.6.31) (13.7.31) (27.7.31) Number of Plants Infected.</i>		
1	Black Prince	100	2	84	310
2	Canadian Wonder	100	47	207	508
3	Masterpiece	100	260	416	452
4	Early Prolific	48	123	190	195
5	Canadian Glory	49	70	110	270
6	White Model	68	36	90	285
7	Fifty Days	29	16	48	110
8†	Ne Plus Ultra	57	12	21	91
9 }	Sultan	42	0	2	48
12 }					
10	Early Queen	23	62	87	106
11	William's Earliest of All ..	65	7	12	91
13*	Superlative	87	20	28	156
14†	Black Wonder	63	20	40	148
15	Rogers' Stringless Refugee ..	23	1?	1	46
16	Refugee 1000-1	15	0	1	50
17	Robust Pea Bean	2	0	0	1
18	Selected Exhibition	47	0	1	14
19	Market Favourite	37	9	15	68
20	Early Saxony	100	0	2	28
21*	Incomparable	100	8	17	258
22	Flageolet St. Andrew	100	22	58	417
23	Unrivalled	58	4	32	87
24*	Magpie	46	0	4	23
25	Flageolet Victoria	100	56	128	304
26	Black Prince	100	9	64	278
27	Black Prince	100	—	38	238

* Best varieties.

† Can be recommended.

NOTES RELATING TO TABLE I.

Row.

- 1 Poor growth at this side of plot. Probably infected by No. 2 in the later stages : but good at earlier counts.
- 2 Infected to a large extent by No. 3, but not entirely. Very susceptible.
- 3 85% (approx.) infected at 2nd count, and finally 100%. Pods much twisted by disease. Highly susceptible.
- 4 The commonest market variety ; very susceptible to " blight."
- 5 Almost 100% infection. Fair crop, but pods too short for market use.
- 6 Badly attacked by disease, including pods. Not a market bean.
- 7 Majority of plants infected. Pods short, soon becoming thickened.

- 8 Very fair ; bean medium length, rather wide.
- 9) Very poor germination ; practically 100% infection at final count. Pods
- 12) useless for market.
- 10 100% attacked ; most susceptible. Fair crop of rather short pods, widening at the end. A number of plants appeared to be infected with mosaic from 2nd count onwards.
- 11 Very poor germination. Plants very variable in cropping ; pods long and often bent.
- 13 A promising variety. Even at final count most of the infection was only of the mild "spot" type. Good crop ; pods long and straight.
- 14 Very fair resistance to disease. Good crop ; pods rather wavy, long, sometimes infected.
- 15) American varieties, highly resistant to disease, since only slight "spots"
- 16) appeared late in season ; but a fortnight later than all others and hence
- 17) useless for commercial work.
- 18 Bad germination, otherwise possibly useful. Good cropper, pods long and straight.
- 19 Light infection ; good crop, but pods rather short and broad. Mosaic present.
- 20 Very resistant to disease. Good crop of pods of medium length, but thick and narrow ; not a market variety.
- 21 Infected late by No. 22, but spot only on leaves. Very fair crop of straight and even pods ; compact habit of growth ; of value commercially.
- 22 A susceptible variety. Good crop, but beans rather long and inclined to curve. Pods infected.
- 23 Germination not too good. Poor foliage, and "running off" of the young pods occurs at the top of the plant.
- 24 Very clean foliage and good crop ; pods medium length, straight or slightly upcurved at tip.
- 25 Generally infected. More growth than crop ; pods flat, medium length, sometimes infected.
- 26) Good growth and crop. Disease mainly in patches and probably from
- 27) No. 25. Generally a fairly resistant variety.

In making counts all plants which showed any infection whatever were included, although this might be only one spot on a leaflet. Many of those numbered in the first count subsequently became entirely brown and dried up, but were included in the later counts so long as still present in the row.

The following varieties were ready for picking at the time of the third count (27.7.31):—"Canadian Glory" ; "Early Prolific" ; "Early Queen" ; "Fifty Days" ; and "White Model." "Black Wonder" ; "Market Favourite" ; "Masterpiece" ; "Ne Plus Ultra" ; and "Superlative" were almost ready.

Of those sown a week later, none were then ready for picking, but "Incomparable" appeared to be the earliest.

On 7.8.31 only the American varieties—Nos. 15, 16 and 17—were not in full bearing, and had not even commenced to pod ; "Rogers' Refugee" is probably the earliest of these. A fortnight later they were fully mature.

As a result of these trials, the varieties concerned may be arranged as follows :—

Highly Susceptible.

Canadian Glory.
Canadian Wonder.
Early Prolific.
Early Queen.
Fifty Days.
Flageolet St. Andrew.
Masterpiece.
White Model.

Susceptible.

Black Prince.
Flageolet Victoria (Magnum Bonum).
Market Favourite.
Sultan.
William's Earliest of All.

Resistant.

Black Wonder (partially).
Incomparable.
Maggie.
Superlative.
Ne Plus Ultra (partially).

Resistant, but useless for market.

Early Saxony.
Refugee 1000-1.
Robust Pea Bean.
Rogers' Stringless Refugee.

It should be noted that in several cases (*e.g.* "Black Wonder") the high figure at the third count does not always mean high susceptibility to the disease, but usually was due to a large number of small and slight infections which at that stage would have little or no effect on the crop.

When estimating susceptibility, the figures for all three counts should be taken into consideration.

"Lightning," on the remainder of the ground, was noticeably infected at the time of the first count, with many bad patches all through, and may be considered highly susceptible.

Dry Root Rot. In 1930, trials of dwarf bean varieties to test their susceptibility to "dry root rot" or "foot rot" (caused by *Fusarium martii* var. *Phaseoli*) suggested that five varieties were somewhat resistant, namely: "Flageolet Victoria" ("Magnum Bonum"), "Early Saxony," "Incomparable," "Flageolet St. Andrew" and "Dwarf Sharpe's Goliath."

Further trials of these varieties were carried out on infected ground in 1931, through the courtesy of Mr. John Hall, junr., of Bretforton. In these trials, the varieties "Early Saxony" and "Early Prolific," the latter of which was used as a control, were decidedly affected. "Sharpe's Goliath" and "Magnum Bonum" resisted foot rot satisfactorily, remaining green after the susceptible varieties had died off. Their resistance is probably due to their thick stems and extensive root systems. "Flageolet St. Andrew" and "Incomparable" also gave fair results, the latter being an especially good market variety, in the opinion of local growers.

Anthracnose. Anthracnose (caused by *Colletotrichum Lindemuthianum*) was noted on the pods of the varieties "Black Prince" and "Early Prolific," but was not of any serious importance.

LEEK DISEASES.

White Tip Disease. The causal organism of the "White tip" disease of leeks has now been worked out fully by Foister (2) and is described as a new species, *Phytophthora Porri*.

The disease was found by us at St. George, Bristol, in 1928, and subsequently at Cheltenham in 1929. In 1931, it appeared to a rather serious extent in market gardens at Evesham and was also noticed at Frenchay, near Bristol.

The disease was prevalent during the winter of 1930, infection being general by October.

In 1931, it was observed on September 5th on plants about to be harvested, having apparently appeared on the plants a few days previously.

On winter leeks, it commenced on infected ground at St. George, Bristol, early in November, and became general about the middle of December.

The results of our variety and dusting trial in 1930-31 have been described in a short paper (5). A longitudinal strip of the plot was dusted with a copper-lime dust (dehydrated copper sulphate 20%, and hydrated lime 80%), at the rate of about two ounces per square yard, on October 23, November 26 and December 15. On March 13, counts were made of the markedly diseased plants in the dusted and control strips, with the following results:—

	Variety.	No. of Diseased Plants (out of 40 in each case).	
		Dusted.	Control.
1	Sutton's Improved Musselburgh	1	37
2	Sutton's Royal Favourite	3	39
3	Sutton's Prizetaker	4	40
4	Sutton's Acquisition	1	31
5	Musselburgh	1	33
6	Dobbie's International	0	33
7	Johnson's Giant	0	37
8	The Lyon	4	40
9	London Flag	5	34
10	Broad-leaved Flag or London	1	30
11	Long Mézières	1	29
12	Poitou, Large Yellow	2	37
13	Brabant Winter	3	33
14	Bulgarian Long-stemmed	2	33
15	Rouen Winter	2	38
16	Erfurt Winter	2	38
17	Carentan Giant Winter	8	20

In localities where the disease has occurred previously, it is recommended, in view of these results, that dustings should be applied at intervals of three or four weeks from October onwards. The disease does not spread extremely rapidly, hence there is a considerable chance of checking it even although it has already appeared on the plants. Dustings are not so necessary in the early spring, as by then slightly attacked plants begin to grow out of the disease. It is probable that Bordeaux mixture would give as efficient control as copper-lime dust.

Further trials have been laid down in the winter of 1931-32 to determine the minimum number of applications of copper-lime dust necessary to give satisfactory control and also the comparative effectiveness of Bordeaux mixture and ammonium polysulphide. The latter has been stated by Foister to give fairly satisfactory results.

Although none of the varieties included in the trial showed any general resistance to the disease, several individual plants appeared to be somewhat resistant, and a stock of these is being worked up.

Botrytis Disease. What is apparently on occasion a somewhat serious disease of leeks, caused by a species of *Botrytis*, was observed at Offenham, near Evesham, late in November 1931. The leaf spots are at first grey, elongate, somewhat depressed, becoming enlarged into well-defined grey or whitish areas with water-soaked edges. The affected areas may occur either at the tip of the leaf or near the base. In the latter case, the more distal parts in line with the affected area become yellow and shrivel up.

The mouse-coloured conidiophores and conidia of the fungus are produced on both surfaces of the leaf.

The pathogenicity of the fungus has been proved.

Leek Rust (Puccinia Porri). Leek rust has been noticed for several years in plantings at Offenham, near Evesham. In 1931, it was first observed about September 1st and, as the grower in question considered it of some importance, spraying and dusting trials were laid down. The disease was fairly evenly distributed throughout and was present on plants from both local and commercial seed.

A plot was treated with flowers of sulphur on September 9th, 1931, and further plots with Bordeaux mixture, copper-lime dust, and a proprietary sulphur dust on October 9th, 1931.

Observations made on November 6th showed no visible difference between treated and control plots, all the plants having definitely grown away from the disease.

We have not yet observed the teleutospores of this fungus.

LETTUCE DISEASES.

Stem Rot. A stem rot of lettuce prevalent in market gardens in the Bristol district was referred to in last year's report. This disease closely resembles one which occurs in the United States and is caused by *Bacterium vitians*, but no further work has been done on its pathogenicity.

Observations in a market garden area at Fishponds, Bristol, suggest that the variety "MacHattie's Giant" is resistant to the disease. Thus counts of 100 plants each in two different plots of the same age, and planted out in November, were made on April 13th, 1931, with the following results:—

Plot 1.	MacHattie's Giant	..	30% diseased plants.
	All the Year Round	..	83% diseased plants.
Plot 2.	MacHattie's Giant	..	31% diseased plants.
	All the Year Round	..	90% diseased plants.

Pleospora Leaf Spot. The leaf spot of lettuces, described in last year's report and in the "Gardeners' Chronicle" (6) and due to *Pleospora herbarum*, has occurred commonly throughout the Province in 1931, but nowhere to such an extent as to warrant control measures.

Ring Spot. With a view to the control of "ring spot" (caused by *Marssonina panattoniana*) trials were laid down on May 8th, 1931, on four plots of the varieties "MacHattie's Giant" (2), "Goliath" and "Stanstead Park." Plots containing 30, 180, 120 and 80 plants respectively, which at that time showed a considerable amount of the disease, were dusted with copper-lime dust, while adjoining plots of the same size were used as controls. Observations on June 16th showed no difference between dusted and control plots, all plants having produced clean heart leaves and grown away satisfactorily from the disease.

Similar trials are being carried out in the winter of 1931-32. In market garden plantings, the disease has been observed to spread outwards from centres in circles of several yards diameter.

On June 1st, 1931, a plot at the Research Station was planted up with lettuce plants already affected with "ring spot," and these

were "dug in" early in September. On September 8th, young plants of the varieties "Lees Immense" and "Stanstead Park" were planted out in the plot and also in a neighbouring plot of the same size. By December 8th, the disease had occurred all over the former, but the plants on the latter were free from disease.

DISEASES OF MINT.

Mint Rust (Puccinia Menthae). Previous but unpublished work by Dr. A. Smith has shown that re-infection of mint plants occurs every year from teleutospores and that the mycelium of the fungus does not live permanently in the underground stems, as was previously supposed.

With these considerations in view, a series of greenhouse plots were laid out as follows on January 14th, 1931, with the co-operation of the late Mr. Frank May, Tewkesbury Road, Cheltenham :---

1. Roots trimmed and washed before planting in greenhouse.
2. Ditto. Green sulphur dusted on roots previous to planting.
3. Trimmed and washed. Roots stirred thoroughly in A.P.S. 1-200.
4. Trimmed and washed. Dusted later with flowers of sulphur.
5. Untrimmed, washed and dipped in A.P.S. 1-200.
6. Untrimmed, washed and burnt.
7. Untrimmed, washed, burnt and dipped in A.P.S. 1-200.
8. Untrimmed, burnt. Not washed.
9. Untrimmed, washed.
10. Untrimmed, washed, and green sulphur dusted on roots.
11. Untrimmed, green sulphur dusted on roots. Not washed.
- 12, 13. Controls.
- 14, 15. Beds watered with A.P.S. (1-200) on February 16th, 1931. Growth barely starting. Otherwise untreated.
- 16, 17. Beds watered with A.P.S. (1-200) on February 2nd, 1931, when no growth visible. Otherwise untreated.
18. Control. Untreated.

"Burnt" means that the old tops were burned off outside before the plants were lifted for forcing.

Each greenhouse bed measured 6 x 4 ft.

In the washing process, the roots were first washed in a large tank, and then transferred to a smaller one for rinsing; in both, they were thoroughly stirred with a fork. They were then transferred to the greenhouse, where the trimming and subsequent planting took place.

The following results were apparent on April 1st :—

1.	15	rustd shoots.	Growth moderate.
2.	1	"	Growth very yellow.
3.	6	"	Growth strong.
4.	2	"	"
5.	6	"	"
6.	6	"	"
7.	8	"	"
8.	12	"	"
9.	3	"	"
10.	3	"	Growth weak, yellow.
11.	7	"	"
12.	26	"	Growth strong.
13.	21	"	" "
14.	17	"	"
15.	14	"	"
16.	15	"	"
17.	7	"	"
18.	12	"	"

It will be seen that rust infection in all the beds was very slight, hence the experiments are of little significance. There is some evidence, however, that washing the underground stems preparatory to planting is beneficial :—

Beds with washed " roots."	Rusted shoots (1.4.31)
9	50
Beds with unwashed " roots."	
9	121

Sulphur dusts were in every case injurious to the plants, causing dwarfing and chlorosis.

It should also be noted here that early planted beds are usually practically free from rust. This is in accordance with Smith's observation that the majority of infections occur about December, the shoots showing visible signs of infection (by the production of oecidia) in January or February.

DISEASES OF ONIONS.

Botrytis Disease. This disease of spring onions was first noticed at Offenham, near Evesham, on November 26th, 1931, and was subsequently observed in market gardens near Bristol. The symptoms are suggestive of frost injury and have been described as such on several occasions. The lesions first appear as small circular or elliptic white spots, often surrounded by water-soaked margins. The area surrounding the spots may eventually dry out and become yellowish-green or grey, so that the tips of the leaves die off. The younger leaves of the plants are less affected than the old.

The disease is apparently very dependent on temperature and humidity. It may cause loss both by checking the growth of the plants and by rendering the onions unsightly when they are bunched for the market.

The organism in question is a small sclerotial *Botrytis* and has been proved to be highly pathogenic to onions.

PARSNIP DISEASES.

Parsnip "Canker." Further work has convinced us that practically all, if not all, of the so-called parsnip "canker" occurring in the Bristol Province is primarily due to injury by dipterous larvae, possibly carrot fly larvae. It was found in a variety trial, carried out through the courtesy of Mr. Walter Byrd, at Norton, near Evesham, that certain varieties tended to split badly at the crowns. This was especially the case in badly shaped varieties. Fungus infection following this type of injury, however, was of little importance compared to infection following carrot fly injury. Three varieties out of 20 included in the trial were of excellent shape with practically no splitting.

Sclerotinia Rot. Stored parsnip roots severely affected with the fungus *Sclerotinia Sclerotiorum* were received from a seedsman in Evesham. The specimens had been forwarded to him from the eastern counties.

DISEASES OF PEAS.

Foot Rots. In the course of our survey of pea fields in the Evesham area in 1931, it was found that in many cases, in addition to the foot rot caused by *Fusarium martii* var. *Pisi*, previously recorded, the roots of the plants were attacked by the eelworm *Heterodera Schachtii*. This infestation was reported by us in the "Gardeners' Chronicle" (7) and has been recorded by Miss M. J. Triffitt in the "Journal of Helminthology" (9).

Severe infestations were observed also at Hallow, near Worcester, and at Berkeley, Glos.

The affected plants, when severely attacked, were much dwarfed, rather pale in colour, and tended to die off at an early stage.

The varieties most severely affected were "Pilot," "Early Bird," "Laxton's Progress," "Laxton's Superb," "Admiral Beatty," and "British Lion," and it will be noticed that these varieties were amongst those listed as most susceptible to *Fusarium*

foot rot in last year's report. It is important to observe also that the early varieties are those most severely affected. This is also the case in "potato sickness," caused by *Heterodera Schachtii* in association with certain fungi.

The relationship between the *Heterodera* and the fungus has yet to be determined. Plants have frequently been found with *Fusarium* lesions only, but in this case the plants are not so markedly dwarfed as when *Heterodera* is also present. On the other hand, apparently healthy plants have been found, the roots of which were covered with eelworm cysts. Other plants, markedly diseased, and bearing eelworms on the roots, gave no *Fusarium* but in its place *Thielavia basicola*.

As in the case of "potato sickness," various anomalies have been noticed. Thus good results have sometimes been observed following treatment of the ground with dung, while in other cases such treatment has given poor results in comparison with other fertilisers.

In 1932, in addition to greenhouse experiments, it is proposed to lay down a comprehensive manurial trial on an infected plot while at the same time further variety trials are to be carried out.

Leaf and Pod Spots. Considerable detailed work has been carried out on the leaf and pod spots and foot rots caused by species of *Ascochyta*. It has been found that both *Ascochyta Pisi* and *Mycosphaerella pinodes* are prevalent in the Province, the former bringing about an important spotting of the pods and the latter, in addition, a severe foot rot.

Both these organisms have been found to be carried in the seed. It appears from our pot experiments that both are susceptible to control by certain seed dressings and field trials are to be laid down in 1932.

Mosaic Disease. A mosaic disease of peas was found in our plantings at the Research Station, occurring at the rate of about 1% on plants from commercial samples. There was no evidence of its spread. The leaves and stipules were strikingly mottled with pale green or with yellowish-green depressed or raised areas, usually between the veins. The pods were markedly distorted, with irregular, somewhat linear depressed dark green areas. The stems were also mottled. Preliminary experiments indicate that the disease is transmissible by rubbing.

POTATO DISEASES.

Potato "Sickness." In 1930, treatment of a small plot of ground affected with potato "sickness" appeared to give some control. A larger plot was laid down in 1931 on infected ground at Bristol Mental Institute, Fishponds, through the kindness of the Director and Mr. J. Merrick, head gardener. The rows, previously dug to the depth of 6 ins., were watered thoroughly with 1 in 50 formalin at the rate of 11 gallons per row of 7 yds. ($4\frac{1}{2}$ gallons per square yard). The rows were then covered in and left for ten days before planting. The variety in question was "Great Scot." The results were as follows:—

					Yield.
Plot 1.	Check.	Untreated.	4 rows	..	20 lb.
2.	4 treated rows	(20 plants per row)	..	..	70 lb.
3.	Check.	Untreated.	4 rows	..	27 lb.

DISEASES OF VEGETABLE MARROW.

Mosaic. Our further work on mosaic of vegetable marrow will not be discussed here in detail as a comprehensive paper is in preparation. Our results to date show that the disease may spread rapidly throughout the season, the insect vector being probably the aphid *Macrosiphum gei*. Certain aspects of the problem are being investigated by Dr. Kenneth M. Smith, of Cambridge.

It has not been found possible to transmit the disease from likely wild plants such as White Bryony, nettles or docks.

No evidence of seed transmission is as yet forthcoming.

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PLATE I.

"Halo Blight" of Dwarf Beans (caused by *Bacterium Medicaginis* var. *phaseolicola* Burk.). Typical "halo" leaf spots.

PLATE II.

- FIG. 1. Stem of infected plant, showing bacterial exudates.
- FIG. 2. Wilt effect, produced by inoculation of the stem with a pure culture a fortnight previously.
- FIG. 3. Pods B. inoculated with bacterial culture, pod S. pricked with sterile needle. Photograph taken nine days subsequently.
- FIG. 4. Affected Pods. Natural infections.

NOTES ON THE RUSTS OF BASKET WILLOWS AND THEIR CONTROL.

By Lawrence Ogilvie.

The willows grown commercially for basket-making in Somerset are mainly of two species, *Salix triandra* and *Salix viminalis* (the osier willow). These are attacked by distinct species of rust fungi, neither of which have up to now been positively identified. The object of the present paper is to describe these diseases in popular terms and to suggest means for their control. A detailed account of investigations on these rusts will be published elsewhere.

1. The Rust on *Salix Triandra*.

The young shoots of *Salix triandra* appear from the old stumps during April. Within about a fortnight of their emergence, there may be seen, especially near the base of the young stems and on the oldest and lowest leaves, elongated, bright orange cankers or swellings. These bear, after the lapse of a week or so, minute flask shaped bodies containing chains of spores, the so-called oecidia, the first stage in the life history of the rust.

The original infections which gave rise to these oecidial cankers took place as the green shoots were first emerging from the stumps, minute spores, the so-called sporidia, having been shot off from another stage of the fungus which overwinters on the dead leaves, as will be described later.

The oecidial stage is of brief duration but is of great importance, as it instigates the prevalent summer or uredo stage. Oecidio spores alighting on the opening leaves of the young shoots bring about infections which give rise to bright orange pustules on the lower, or more rarely on the upper surfaces, and cause, in severe cases, distortion, considerable leaf fall and stunting of the growth of the plant.

The spread of the uredo stage takes place with great rapidity since, under favourable conditions, *i.e.* warm and moist weather, the production of fresh pustules takes place as soon as five days after infection.

The most important stage in the life history of the rust from the grower's point of view is the infection of the green stem itself. This first takes place early in July and usually occurs in the neighbourhood of an infected leaf stalk. These infections do not extend greatly in area but, with the enlargement and hardening of the stem, elongated and depressed cankers are formed. These cankers continue to produce orange coloured uredospores throughout the summer as do the uredo pustules on the leaves.

The uredo stage is succeeded, first of all on the lower leaves, by the teleuto or resting pustules, which begin to appear early in July and are produced continuously till the time of leaf-fall. These form dark brown crusts which are confined mainly to the lower surfaces of the leaves and are composed of thick walled spores closely packed together in a palisade-like layer. These spores persist throughout the winter. No germination takes place till early April when, during a very limited period when the young willow shoots are first appearing, each spore gives rise to four minute sporidia which are shot off and bring about the oecidial infections again, thus initiating the yearly cycle.

The uredo stem cankers already referred to persist throughout the winter in a dormant state and in early spring produce a fresh crop of uredospores. On rods in pits uredospores may appear as early as March. The cankers produce the well-known black marks on the peeled rods, caused by the bark adhering to the wood at these points. These constitute the chief damage done to the industry by the rust, since affected rods are disfigured and break easily.

It will be observed that initiation of the yearly cycle may be brought about either by sporidia shot off from the old leaves on the ground (giving rise to oecidia, the oecidio spores from which

again give rise to uredo pustules), or by uredospores liberated from over-wintered cankers on old rods. The latter method has been found to be very unusual, since the old rods are cut off in winter or early spring almost level with the ground, leaving the stump clean. Occasionally, however, the stump may be infected, especially if the withies have not been cut off sufficiently low down, and the resulting cankers may continue to bear uredospores, every spring, year after year. In fields where there appears to be little infection from dead leaves, the removal of such infected stumps may prove to be of considerable importance in the control of the disease.

As already stated, the fungus does not extend beyond the area covered by the cankers on the rods, hence cankered rods may be safely used as sets if the cankered parts are cut off.

Infection experiments and measurements of the fungus (to be described more fully elsewhere) have established its identity with *Melampsora Amygdalinae*, first described by H. Klebahn from Germany in 1899, but apparently not previously recorded from this country.

It is important from the practical point of view that this rust is entirely confined to *Salix triandra* and does not produce an alternate stage on any other plant, as many of the willow rusts do.

Attempts to infect leaves of the common tree willows *Salix alba* and *S. fragilis* with uredospores of this rust were unsuccessful, as was to be expected from Klebahn's previous work.

With regard to the control of the disease, there are five possible lines of approach :—

1. *Applications of fungicides.* It would seem from the life history of the rust that the period during which fungicides are most likely to be successful is when the young shoots first appear in the spring, and that *it is of the first importance to prevent the initial infection by the sporidia.* That such infection can be prevented under controlled conditions is shown by the following greenhouse experiment. On April 10th, 1931, dead leaves bearing teleuto-spores were suspended at the top of an inverted beaker over four willow plants (*S. triandra* var. "Champion Rod") grown from cuttings, three of which had been sprayed with Bordeaux mixture (5-5-50). On April 24th, the leaves of the unsprayed plant showed oecidial cankers while the other three plants remained free from rust.

In an endeavour to control the disease in the field, a trial plot was sprayed with Bordeaux mixture (5-5-50) on April 9th, 1931, at Midelney Farm, Drayton, near Langport, through the courtesy of Mr. Abel Willey. The withies in question, *S. triandra* var. "Black Maul," had been cut from the stumps in December and the largest buds at the time of spraying were $\frac{1}{2}$ in. long.

Counts of oecidial infections on sprayed and unsprayed plots on May 19th showed no significant difference between the two, thus ten sprayed stumps had 17 infections while ten unsprayed showed 22 infections.

Again, a series of plots of the same variety in another field were dusted with ground sulphur and copper lime dust on April 23rd, 1931, and on the following subsequent dates, May 25th, June 27th and July 14th. The plots in question were in a spot which had shown severe rust infection in the previous year. Each plot consisted of four rows and contained about 500 plants. The dusted plots were separated by undusted. The largest shoots measured about an inch in length when the first dusting took place.

Counts were made of uredinial cankers on 100 rods in the middle of dusted and undusted plots on November 12th, 1931, with the following results :—

1. Copper lime dust	..	..	..	75 cankers.
2. Check	..	..	..	183 cankers.
3. Copper lime dust	..	..	..	73 cankers.
4. Check	..	..	..	182 cankers.
5. Ground sulphur	..	..	..	92 cankers.
6. Ground sulphur	..	..	..	95 cankers.

It will be seen that the dusted rows in both cases had approximately half the number of cankers of the check rows. The amount of control, however, was not regarded as sufficient to warrant the application of the dusts, although it must be remembered that the plots were sufficiently narrow to allow reinfection of dusted rows to take place from control rows.

It is recognised that the disease is extremely difficult to control once it has gained impetus owing to the quick growth of the shoots and the rapid multiplication of the uredinial pustules. It is suggested that *the most important applications are the earliest, and that the first spray or dust should be put on when the buds first begin to show green, followed by a second about a week later.*

2. *Late Cutting of Rods.* It is the general experience amongst growers that stumps from which withies are cut in spring produce



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.

shoots free from basal cankers and are therefore more liable to remain comparatively free from rust. This is apparently because the young shoots have not appeared during the time when the sporidia are shot off.

3. *Removal of Infected Stumps.* In fields where little oecidial infection takes place and where uredinial infection still appears, it would probably pay the grower to go round in early spring and remove stumps showing uredinial cankers.

4. *Drainage.* Observations indicate that initial oecidial infections are prevalent in certain spots year after year, usually hollows where water tends to collect and where washings of dead leaves tend to accumulate. It is suggested that such areas should either be drained by ditches giving a fairly rapid run off or, if this is not possible, that the stumps should be grubbed up. Otherwise they tend to be centres of serious initial infection.

5. *Resistant Varieties.* The possibility of raising varieties resistant to rust must always be borne in mind. The following varieties have been infected from uredo material from "Black Maul" by careful inoculations in the laboratory: "Stone Rod," "Light French," "Notts Spaniard," "Mottled Spaniard," "Black Spaniard," "Glibskin," "White Newkind," "Seedling Newkind," "Whissender," "Grizette Noire," "Champion," and "Black German." It should be noted, however, that there are possibly several strains of *Melampsora Amygdalinae* on *Salix triandra*. Thus uredospores taken from a stem canker on "Champion Rod" produced infection on "Newkind Spaniard" and on "Champion Rod" but not on "Jacob's triandra" under the same conditions, although "Jacob's triandra" is infected with the rust in the field.

According to growers, the variety "Black Spaniard" is somewhat resistant, while "Champion Rod" is highly susceptible.

2. *The Rust on Salix Viminalis.*

The minute yellow uredo-pustules of this rust appear mainly on the under surfaces of the leaves from June until the time of leaf-fall.

From early August onwards teleuto-pustules are produced, intermingled with the uredo-pustules. The former are found on both leaf surfaces and take the form of small, raised, pale brown blisters or extensive crusts, which are composed of prismatic, thick walled cells, the teleutospores.

The teleutospores germinate in early spring, giving rise to thin walled sporidia which have been shown experimentally to infect leaves of the common larch (*Larix europaea*).

About a fortnight after infection, minute pale orange oecidial pustules are produced on the larch leaves. They appear to be formed out of doors in May and June, the resulting oecidiospores in turn infecting young leaves of *Salix viminalis*, on which uredospores are again produced.

The rust does not form cankers on the willow stems and the only method of over-wintering appears to be by means of teleutospores on dead leaves.

The rust has been identified as *Melampsora Larici-epitea*, first described by Klebahn. It is not of great economic importance. Although severe uredo infections may take place, it is seldom that severe defoliation follows. Sometimes a severe development of teleuto-pustules may follow an apparently slight uredo infection. In this case, the leaves become very much blackened and leaf-fall may take place. The lateness of these infections, however, renders the effect on the rods practically negligible, hence control measures are unnecessary.

The writer wishes to express his indebtedness to Professor H. Klebahn, Dr. E. J. Butler, Dr. G. H. Pethybridge, Mr. W. B. Grove and Dr. Alex Smith for their assistance in the matter of literature dealing with the fungi concerned and to Mr. H. P. Hutchinson, Willow Officer, for suggestions.

ILLUSTRATIONS.

Melampsora Amygdalinae.

FIG. 1.—Cutting of *Salix triandra* var. "Champion Rod" grown in a pot in a cool greenhouse. On April 10th, 1931, dead leaves bearing teleutospores were suspended over the plant inside a beaker. The photograph was taken on April 29th and shows a typical oecidial canker which has developed at the base of one of the young shoots.

FIG. 2.—Uredinial cankers on peeled rods.

FIG. 3.—Old stump of *Salix triandra* var. "Black Maul" showing persistent uredinial stem canker, producing uredospores. From willow fields at Athelney, March 18th, 1931.

FIG. 4.—Teleutosori on leaves of *Salix triandra* var. "Black Maul."

CIDER MAKING TRIALS FOR THE SEASON 1930-31.

By O. Grove.

The 1930 cider apple crop was below the average in most districts, both in quantity and quality. In some parts of Hereford and Monmouth the crop was, however, fairly good. The juices were characterised by exceptionally low sugar contents, the average specific gravity of juices from all the samples examined at the Institute being only 1.0469. This is the lowest average but one ever recorded at the Institute, and is a remarkable contrast with that for the previous season, 1929, which was 1.0575, the highest but one recorded. The highest and lowest gravities hitherto recorded were 1.060 and 1.046, these occurring in the years 1921 and 1922 respectively. There are thus two outstanding cases of a year of exceptionally high gravities being followed immediately by a year of abnormally low gravities. It would seem likely that the heavy drain in the carbohydrate reserves of the trees resulting from the production of a crop of fruit very rich in sugar is not fully replaced during the growing period of the following summer and that, accordingly, the succeeding crop is deficient in that respect. It is noteworthy that in spite of this deficiency of sugar in the juices, the ciders as a whole turned out to be of very fair quality, being agreeable in flavour even if on the light side. The season afforded a very good illustration of the point that the specific gravities of the juices alone do not provide a reliable guide to the quality of the ciders made from them. There was a fair crop of perry pears.

THE CIDER AND PERRY COMPETITIONS.

For the sixth year in succession, a competition on similar lines to those described in earlier reports was arranged.

102 entries of fruit were received. Of these 91 were apples and 11 pears. The fruit was stored until fit for milling, and the subsequent treatment given to each cider and perry was uniform except for the following differences as to the filtration period. In Classes I, II and VI the ciders and perries were filtered when the specific gravity of the fermenting juices was 1.030 ; in Classes III and IV, 1.025 was the filtration gravity.

The competition was open to growers residing in the counties of Devon, Dorset, Gloucester, Hereford, Monmouth, Somerset and Worcester. The entries from the different counties were dis-

tributed as follows:—Devon, 22; Dorset, 2; Gloucester, 16; Hereford, 18; Monmouth, 27; Somerset, 15; Worcester, 2.

The ciders and perries were judged on April 28th and 29th, 1931, by Messrs. G. A. Martin, Bristol; E. G. F. Walker, Chew Stoke, Bristol; and the Hon. J. W. Best, Melplash, Dorset.

Class I (Kingston Black), with only two entries, was disappointing, the quality of the ciders being much below the usual standard of this variety.

Class II (Sharp Varieties) was, as last year, divided into two groups:—A, with an acidity of the juices of 0.80% or above; B, with an acidity below 0.80%. Group A comprised ciders which can only be used for blending with ciders of lower acidity, whereas the ciders in Group B can be used unblended. Group A (13 entries), contained some good ciders with a very pronounced acid flavour, but not much “body.” Nos. 1 and 2 had a clean, sharp character. Of the Fredericks, No. 5 was considered the best in spite of the exceptionally low specific gravity of the juice—all the samples of this variety had an abnormal deposit of pectic substances, which was precipitated soon after filtration. No. 10, Red Streak, was a good sharp cider, better than No. 11, Bastard Tom Putt, which had little character. No. 13, Somerset Crab, was a very sharp cider of moderate value. The two last of the group, Cap of Liberty and Hartisman, were good samples. Group B (15 entries), was a good class with a fair range of acidity. Most of the ciders could be used alone or for blending. The best in the group were Dymock Red, Crimson King, White Sharp, Kempley Red and Colmans. The last variety was tried for the first time. No. 28, Cowarne Red, was below the usual standard for the variety. The rest of the entries in the group were quite fair ciders.

Class III (Sweet Varieties) with 29 entries was not of high merit. The ciders were rather thin and lacking in body, without the characteristic aroma of a sweet class. No. 25, Tale Sweet, was considered the best sample in the group. As this apple was making its appearance in the trials for the first time, it may prove a very useful addition to the rather limited group of first-class sweet cider apples. The six samples of Perthyres were very similar in character, rather thin ciders of fair quality: No. 38 was the best of the lot. The samples of Sweet Alford and Woodbine sent in produced ciders much below the best standard of the varieties. Slack-ma-Girdle was the best of the remainder of the varieties entered.

Class IV (Bittersweet Varieties) with 19 entries was a better

class than could have been expected for the season. The ciders were well balanced, the bitter flavour not being too prominent. No. 61, White Norman, was one of the best of the group, a most useful cider for blending with ciders made from sharper varieties. No. 63, Cummy Norman, was similar in character. Of the Strawberry Normans, No. 72 was superior to the others. No. 65, Sweet Buckland, tried for the first time, gave a good cider of a mild bitter-sweet character. No. 66, Tremlett's Bitter, was a fair cider with some astringency. No. 67, Knotted Kernel, gave a cider of high quality. Royal Wilding, No. 74, was a good representative of this variety. The rest of the entries were of quite fair quality, the four last of the class being somewhat inferior to the others.

Class V, for Blends (13 entries), was an excellent class, all of the samples being of high quality. As explained below in the judges report, the samples were made up by blending individual exhibitor's ciders entered in the sharp class and either or both of the sweet and bittersweet classes in proportions determined by the Institute, as stated in the table. As will be seen from the table, two blends, A and B, were made from each set of ciders by blending the individual ciders in different proportions, the A blends being slightly more acid than the B blends.

The Blends, Nos. 79, 80, 86, 87 and 88, were similar in character, and they all had the variety Frederick as the sharp component. These blends clearly demonstrated the excellent quality of this variety for blending purposes. Both the No. 81 blends were of good quality, the A blend being considered the better of the two. The same was found in the case of No. 82, where the B blend was a little too bitter. Otherwise the lower acidity (B) blends were preferable to the higher acidity (A) blends in nearly all cases. The No. 83 blends, consisting of four varieties, were very similar and both good ciders. In the cases of Nos. 84 and 85, the B blends were the best, the same being found with No. 89, whereas No. 90 A was superior to No. 90 B. Blend No. 91, although containing Kingston Black cider, was not considered up to the standard of some of the Frederick blends.

Class VI, Perries (11 entries), was not of such good quality as in the two previous seasons, but the Blakeney perries were considered good for this variety, especially the two first, Nos. 92 and 93. No. 97, a variety tried for the first time, gave a perry of moderate quality. No. 98, Oldfield, was superior to the rest, as is usual with this excellent variety. The Clarets produced very acceptable perries, No. 100 being the better of the two. The Butt perries were

not quite so astringent in flavour as usual, and No. 102 was a very fair sample of the variety.

With regard to the samples Nos. 103-111 from the Long Ashton Trial Orchard, they were on the whole below standard, because of the low specific gravity of the juices characteristic of the season.

REPORT OF JUDGES ON THE LONG ASHTON CIDER COMPETITIONS 1930-31.

The judging of the ciders in these Competitions took place on April 28th and 29th, 1931.

Before dealing with the individual classes, a few general comments on the ciders may be made. Throughout all classes the effect of the abnormally poor quality of the 1930 crop of fruit was obvious. The average specific gravity of the freshly expressed juices was the lowest recorded in the history of these competitions. There was therefore a general deficiency in body and alcoholic strength in nearly all the ciders: consequently they were exceptionally light drinks. The acidity was generally slightly lower than usual, but stood out with unusual prominence on the palate in view of the thin character of the beverages in the classes for sharp varieties in particular. Apart from this feature, the flavour generally was pleasant, although thin. There was a noteworthy absence of taints in every case, a remarkable result in such a season and one reflecting great credit on the cider house staff. Moreover, in no instance was there a single cider which could not be converted into a palatable beverage after suitable blending.

Only two entries were submitted in Class I for Kingston Black apples only. This was due to the failure of the crop of this variety in 1930. Only one prize has been recommended, the award going to a cider of fair quality, but lacking in body. The standard was decidedly below the average for this famous apple.

Following on the satisfactory results obtained last year by dividing the Class for Sharp Apples into two sections—A for very acid sorts suitable only for blending, and B for medium acid sorts suitable for use unblended—this class was treated similarly on this occasion. Both sections were good as a whole in spite of the penetrating character of the acidity and general lack of body. The Frederick ciders showed an abnormal pectin deposit, attributable to the effect of the season on the fruit. There were 13 entries in Section A of this class and 15 in Section B.

Class III, for Sweet Varieties, with 29 entries, maintained its usual reputation as a somewhat disappointing class. The ciders

were rather thin, featureless and lacking in body, although clean in flavour. No entry was of distinctive merit.

The Bittersweet Class (Class IV) contained 19 entries. For the season it was a good class with a well-balanced proportion of bitterness. The unpleasantly marked astringency noted in some years was absent on this occasion. For blending purposes, the material was very useful.

The Blend Class (Class V) was this year treated on new lines. Instead of growers entering a mixture of apples made up by themselves in proportions selected by them as suitable to yield a good blend, the blending was done by the Institute. Each grower making entries in the sharp class, and either or both of the sweet and bitter-sweet classes, was entitled to have those entries also included in the class for blends. Two types of blends, differing slightly in acidity were made up in each case and, as far as possible, a uniform standard was aimed at throughout for each type. The result was an excellent class of ciders, all of them of bottling quality. Every one was adjudged as being of high merit. Incidentally, the value of Frederick as a sharp apple for blending has been clearly shown on this occasion. In this form, the class represents a new departure of high educational and commercial value, and demonstrates what can be done in the way of producing a set of well-balanced and uniform ciders from material of the most varied description. It is hoped that the class will be continued in future years in this form.

The Perry Class (Class VI) contained 11 entries. Compared with the exceptionally high quality of this class in the two previous years, the standard this time was moderate. The Blakeney Red perries as a whole were good for this variety. The general level of the class was certainly affected by the lack of entries of the Oldfield variety, of which there was only one, and that secured the first prize.

In conclusion, we must not omit a reference to the obvious care with which the whole of the work entailed has been conducted, and the impartial effort made to give all entries an equal chance in these competitions, which by their nature must be exceptionally difficult to manage in this respect.

Signed G. A. MARTIN.

JAMES W. BEST.

ELDRED G. F. WALKER.

Judges.

TABLE I.
COMPETITION VARIETIES.

No.	Name of Variety.	Date of making.	Specific Gravity of Fresh Juice.		Tannin per cent.	Rate of fermentation.	Date of Filtering.	Specific Gravity at time of May.		Name and Address of Grower.
			Acid per cent.	Gravity				Acid per cent.	Gravity	
CLASS 1.—KINGSTON BLACKS—										
1	Kingston Black ..	17/11/30	1.047	0.46	0.12	7.1	5.12/30	1.030	1.026	G. Williams & Son, Westthide, Her.
2	" ..	17/11/30	1.051	0.47	0.14	4.2	22/1/31	1.030	1.029	Stead Bros., Penhow Castle, Newport, Mon.
CLASS 2A.—SHARP VARIETIES. Acidity 0.8 per cent. or above.—										
3	Red Streak ..	14/10/30	1.047	1.14	0.09	6.4	22/10/30	1.030	1.028	P. E. Bomford, Cowsden Hall, Wor.
4	King of the Orchard	24/10/30	1.048	0.83	0.12	6.0	6/11/30	1.030	1.029	S. J. Mullins, Dingestow, Mon.
5	Frederick ..	28/10/30	1.038	0.90	0.07	5.4	3/11/30	1.030	1.028	S. W. Mullins, Raglan, Mon.
6	Frederick ..	28/10/30	1.041	0.97	0.09	4.8	5/11/30	1.030	1.028	S. J. Mullins, Dingestow, Mon.
7	Frederick ..	28/10/30	1.046	1.07	0.09	3.8	27/11/30	1.030	1.030	W. Beer, Abergavenny, Mon.
8	Frederick ..	28/10/30	1.046	1.12	0.09	3.6	5/12/30	1.030	1.030	J. P. Williams, Abergavenny, Mon.
9	Frederick ..	28/10/30	1.050	1.08	0.09	3.6	17/12/30	1.030	1.029	W. P. Marfell, Usk, Mon.
10	Red Streak ..	28/10/30	1.048	1.15	0.09	7.4	5/11/30	1.030	1.030	H. Knight, Huntley, Glos.
11	Bastard Tom Putt ..	3/11/30	1.049	0.83	0.17	3.2	20/11/30	1.030	1.030	W. H. Hunt, Easton-in-Gordano, Som.
12	Frederick ..	4/11/30	1.048	1.03	0.09	3.5	16/12/30	1.030	1.030	G. Breakwell, Rockfield, Mon.
13	Somerset Crab ..	12/11/30	1.045	1.10	0.21	5.2	1/12/30	1.030	1.029	E. C. Smith, Stoke Abbott, Dorset.
14	Cap of Liberty ..	17/11/30	1.053	0.89	0.18	5.2	19/1/31	1.030	1.030	J. T. Shield, Berkeley, Glos.
15	Hartisman ..	1/12/30	1.043	0.80	0.16	4.6	15/12/30	1.030	1.028	W. H. Hunt, Easton-in-Gordano, Som.
CLASS 2B.—MEDIUM SHARP VARIETIES. Acidity below 0.8 per cent.										
16	White Sharp ..	30/10/30	1.043	0.58	0.12	4.0	18/11/30	1.030	1.030	W. H. Hunt, Easton-in-Gordano, Som.
17	Fair Maid of Devon	30/10/30	1.043	0.76	0.10	5.2	7/11/30	1.030	1.028	J. Walters & Sons, Newton St. Cyres, Devon.
18	American Norman	31/10/30	1.048	0.46	0.24	6.7	7/11/30	1.030	1.030	R. Evans, Norton Canon, Her.

TABLE I.—continued.

CIDERS.

COMPETITION VARIETIES.

CLASS 2B.—MEDIUM SHARP VARIETIES. Acidity below 0.8 per cent.— <i>contd.</i>										
19	Greasy Red Streak	4/11/30	1.048	0.78	0.14	4.6	22/11/30	1.030	1.030	G. E. Puddy, Wrington, Som.
20	Tom Putt	4/11/30	1.046	0.64	0.15	6.1	18/11/30	1.030	1.030	H. R. Jenkins, Westhide, Her.
21	Royal Somerset	4/11/30	1.046	0.71	0.11	5.6	20/11/30	1.030	1.029	E. Down, Pinhoe, Devon.
22	Tom Putt	4/11/30	1.047	0.61	0.12	7.8	17/11/30	1.030	1.027	J. Taylor, Much Marele, Her.
23	Crimson King	4/11/30	1.049	0.53	0.12	6.5	20/11/30	1.030	1.028	E. C. Smith, Stoke Abbott, Dorset.
24	Golden Streak	4/11/30	1.053	0.77	0.08	7.1	22/11/30	1.030	1.030	G. E. Puddy, Wrington, Som.
25	Dymock Road	7/11/30	1.048	0.54	0.19	4.0	5/12/30	1.030	1.028	E. T. Lewis, Dymock, Glos.
26	Ponsford	12/11/30	1.045	0.66	0.13	5.0	2/12/30	1.030	1.026	F. E. Salter, Crediton, Devon.
27	Kempley Red	12/11/30	1.040	0.45	0.13	4.2	3/12/30	1.030	1.030	W. Wootton, Byford, Her.
28	Cowarne Red	17/11/30	1.048	0.73	0.11	5.5	10/1/31	1.030	1.030	W. P. Merrett, Arlingham, Glos.
29	Colmans	18/11/30	1.044	0.75	0.15	5.0	24/12/30	1.030	1.028	J. Walters & Sons, Newton St. Cyres, Devon.
30	Wyatt's Seedling	20/11/30	1.045	0.44	0.14	4.0	8/12/30	1.030	1.029	W. J. Barry, Newton St. Cyres, Devon.
CLASS 3.—SWEET VARIETIES—										
31	Sweet Alford	24/10/30	1.046	0.36	0.15	5.7	3/11/30	1.025	1.024	J. Peek, Ottery St. Mary, Devon.
32	Golden Ball	24/10/30	1.044	0.31	0.15	3.2	13/12/30	1.025	1.024	S. W. Mullins, Raglan, Mon.
33	Belle Norman	30/10/30	1.043	0.27	0.18	5.0	17/11/30	1.025	1.023	J. E. Bradley, The Newbolds, Mon.
34	Perthyres	30/10/30	1.045	0.25	0.18	5.2	17/11/30	1.025	1.023	S. W. Jones, Tregare, Mon.
35	Perthyres	30/10/30	1.043	0.23	0.17	4.2	24/11/30	1.025	1.025	W. Beer, Abergavenny, Mon.
36	Perthyres	30/10/30	1.045	0.24	0.17	4.5	22/11/30	1.025	1.025	S. J. Mullins, Dingestow, Mon.
37	Perthyres	30/10/30	1.044	0.25	0.17	3.0	15/12/30	1.025	1.025	A. L. Thomas, Manson, Mon.
38	Perthyres	30/10/30	1.046	0.27	0.18	3.5	29/11/30	1.025	1.025	W. P. Marfell, Llangeview, Usk, Mon.
39	Sweet Alford	30/10/30	1.049	0.22	0.15	2.7	17/1/31	1.025	1.025	F. Vincent, Pinhoe, Devon.
40	Sweet Alford	30/10/30	1.050	0.24	0.14	2.5	26/1/31	1.025	1.025	S. Cursons, Dunsford, Devon.
41	Sweet Alford	3/11/30	1.049	0.20	0.15	2.2	27/1/31	1.025	1.025	E. Down, Pinhoe, Devon.
42	Perthyres	4/11/30	1.047	0.28	0.16	6.1	24/11/30	1.025	1.024	H. R. Jenkins, Westhide, Her.
43	Pound Apple	4/11/30	1.054	0.29	0.16	6.1	2/12/30	1.025	1.024	F. Vincent, Pinhoe, Devon.
44	Slack-na-Girdle	7/11/30	1.047	0.28	0.12	4.2	16/12/30	1.025	1.023	S. Cursons, Dunsford, Devon.
45	Sweet Alford	7/11/30	1.048	0.20	0.12	2.4	5/3/31	1.025	1.025	H. Hoare, Staverton, Devon.

TABLE I.—*continued.*

CIDERS.

COMPETITION VARIETIES.

No.	Name of Variety.	Date of making.	Specific Gravity of Fresh Juice.	Malic Acid per cent.	Tannin per cent.	Rate of fermentation.	Date of Filtering.	Specific Gravity at time of Filtering.	Specific Gravity of May, 1931.	Name and Address of Grower.
CLASS 3.—SWEET VARIETIES— <i>contd.</i>										
46	Berkeley Pippin	7/11/30	1.045	0.24	0.14	7.6	24/11/30	1.025	1.024	W. H. Hunt, Easton-in-Gordano, Som.
47	Red Norman	7/11/30	1.042	0.22	0.18	5.6	25/11/30	1.025	1.023	R. T. Hinckes, Foxley, Her.
48	Sweet Alford	12/11/30	1.050	0.22	0.12	4.2	16/1/31	1.025	1.024	H. J. Phelps, Tibberton, Glos.
49	Perthyres	12/11/30	1.043	0.30	0.17	5.2	8/12/30	1.025	1.024	G. Breakwell, Rockfield, Mon.
50	Woodbine	13/11/30	1.055	0.40	0.16	5.7	18/12/30	1.025	1.024	W. Hill, Kittisford, Som.
51	Woodbine	13/11/30	1.044	0.26	0.13	4.7	19/12/30	1.025	1.023	J. Walters & Sons, Newton St. Cyres, Devon
52	Woodbine	13/11/30	1.050	0.27	0.12	4.5	31/12/30	1.025	1.024	R. J. Denning, Ilminster, Som.
53	Woodbine	13/11/30	1.049	0.29	0.12	5.2	23/2/31	1.025	1.025	F. E. Hosegood & Son, Ilminster, Som.
54	Sweet Alford	13/11/30	1.046	0.20	0.13	3.2	15/1/31	1.025	1.025	G. E. Puddy, Wrington, Som.
55	Tale Sweet	17/11/30	1.057	0.31	0.16	4.5	23/2/31	1.025	1.025	H. Daniel, Honiton, Devon.
56	Pear Pine	17/11/30	1.044	0.22	0.11	6.2	9/12/30	1.025	1.024	A. J. Abbott, Ivybridge, Devon.
57	Pound Apple	18/11/30	1.050	0.39	0.17	5.3	21/1/31	1.025	1.025	G. W. Voysey, Musbury, Devon.
58	Perthyres	20/11/30	1.044	0.27	0.19	5.8	5/12/30	1.025	1.023	S. W. Mullins, Raglan, Mon.
59	Woodbine	26/11/30	1.047	0.22	0.16	4.4	24/12/30	1.025	1.026	J. H. Chapman, Ilminster, Som.
CLASS 4.—BITTERSWEET VARIETIES—										
60	Royal George	14/10/30	1.052	0.36	0.22	5.8	10/11/30	1.025	1.024	W. H. Hunt, Easton-in-Gordano, Som.
61	White Norman	21/10/30	1.055	0.27	0.34	6.0	17/11/30	1.025	1.023	W. R. Thomas, Nunnington, Her.
62	Large Hangdown	24/10/30	1.044	0.23	0.22	3.7	24/11/30	1.025	1.025	R. Collins, Chagford, Devon.
63	Cummy Norman	31/10/30	1.053	0.30	0.27	7.5	17/11/30	1.025	1.021	R. Evans, Norton Canon, Her.
64	Strawberry Norman	31/10/30	1.051	0.34	0.34	8.2	13/11/30	1.025	1.023	" " " "
65	Sweet Buckland	3/11/30	1.051	0.27	0.20	5.8	28/11/30	1.025	1.024	A. Dibble, Ilminster, Som.
66	Tremlett's Bitter	3/11/30	1.048	0.22	0.26	2.8	30/12/30	1.025	1.025	F. Vincent, Pinhoe, Devon.

TABLE I.—*continued*.
COMPETITION VARIETIES.

CIDERS.

CLASS 4.—BITTERSWEET VARIETIES—*contd.*

67	Knoted Kernel..	4/11/30	1.060	0.38	4.3	5/2/31	1.025	1.023	J. E. Edwards, Norton Canon, Her.
68	Royal Wilding ..	7/11/30	1.051	0.25	7.6	2/12/30	1.025	1.023	R. C. G. Cotterell, Bridge Sollers, Her.
69	Bittersweet ..	12/11/30	1.049	0.35	4.2	12/1/31	1.025	1.025	G. W. Voysey, Musbury, Devon.
70	Strawberry Norman	12/11/30	1.050	0.36	3.34	29/12/30	1.025	1.023	E. T. Lewis, Dymock, Glos.
71	Brown Snout ..	12/11/30	1.051	0.26	4.5	22/1/31	1.025	1.025	" "
72	Strawberry Norman	13/11/30	1.055	0.34	3.32	22/1/31	1.024	1.024	J. Lloyd, Newent, Glos.
73	Strawberry Norman	17/11/30	1.049	0.24	3.31	13/1/31	1.025	1.023	G. H. Chudley, Ipplepen, Devon.
74	Royal Wilding ..	17/11/30	1.050	0.24	0.19	16/12/30	1.025	1.019	G. Williams & Son, Westhide, Her.
75	French ..	20/11/30	1.046	0.26	3.34	10/12/30	1.025	1.021	W. Beer, Abergavenny, Mon.
76	French ..	20/11/30	1.054	0.30	4.46	27/12/30	1.025	1.021	A. L. Thomas, Manson, Mon.
77	French ..	20/11/30	1.051	0.34	3.36	8/12/30	1.025	1.021	I. R. Price, Westhide, Her.
78	Councillor ..	20/11/30	1.051	0.16	3.31	13/12/30	1.025	1.022	T. Fawkes, Leonard Stanley, Glos.

CLASS 5.—BLENDS MADE FROM CIDERS ENTERED IN CLASS 1 OR 2: CLASS 3 AND 4. A and B indicate two different blends of the same ciders in proportions as shown. The numbers in brackets are the programme numbers of the ciders used for the blend.

79A	Frederick (7)—1, Perthyres (35)—1, French (75)—1 ..	..	..	0.59	0.16	..	..	1.025	W. Beer, Abergavenny, Mon.
79B	Frederick (7)—2, Perthyres (35)—5, French (75)—3 ..	..	..	0.52	0.19	..	..	1.025	W. Beer, Abergavenny, Mon.
80A	Frederick (12)—1, Perthyres (49)—2 ..	..	..	0.60	0.17	..	..	1.027	G. Breakwell, Rockfield, Mon.
80B	Frederick (12)—1, Perthyres (49)—4 ..	..	..	0.53	0.15	..	..	1.026	G. Breakwell, Rockfield, Mon.
81A	Royal Somerset (21) —3, Sweet Alford (41)—2 ..	..	..	0.57	0.12	..	..	1.028	E. Down, Pinhoe, Devon.
81B	Royal Somerset (21) —1, Sweet Alford (41)—1 ..	..	..	0.54	0.12	..	..	1.027	E. Down, Pinhoe, Devon.

TABLE I.—*continued.*
COMPETITION VARIETIES.

No. Name of Variety.	Date of making.	Specific Gravity of Fresh Juice.	Malic Acid per cent.	Tannin per cent.	Rate of fermentation.	Date of Filtering.	Specific Gravity at time of May, Filtering. 1931.	Name and Address of Grower.
CLASS 5.—BLENDS MADE FROM CIDERS ENTERED IN CLASS 1 OR 2; CLASS 3 AND 4, ETC.— <i>contd.</i>								
82A American Norman (18)—8, Cummy Norman (63)—1, Strawberry Norman (64)—1	0.42	0.22	..	..	..	1.028 R. Evans, Norton Canon, Her.
82B American Norman (18)—4, Cummy Norman (63)—1, Strawberry Norman (64)—1	0.40	0.28	..	..	..	1.027 R. Evans, Norton Canon, Her.
83A Hartisman (15)—1, Royal George (60)—1, White Sharp (16)—1, Berkeley Pippin (46)—1	0.54	0.14	..	..	..	1.026 W. H. Hunt, Easton-in-Gordano, Som.
83 B Hartisman (15)—1, Royal George (60)—2, White Sharp (16)—2, Berkeley Pippin (46)—1	0.52	0.14	..	..	..	1.025 W. H. Hunt, Easton-in-Gordano, Som.
84A Tom Putt (20)—3, Perthryes (42)—2	0.58	0.16	..	..	..	1.027 H. R. Jenkins, Westhide, Her.
84B Tom Putt (20)—1, Perthryes (42)—2	0.48	0.14	..	..	..	1.026 H. R. Jenkins, Westhide, Her.

TABLE I.—*continued.*

CIDERS.		COMPETITION VARIETIES.			
CLASS 5.—BLENDS MADE FROM CIDERS ENTERED IN CLASS 1 OR 2; CLASS 3 AND 4, ETC.— <i>contd.</i>					
85A	Dymock Red (25)— 12, Strawberry Nor- man (70)—1, Brown Snout (71)—6 ..	..	0.56	0.20	.. .. 1.026 E. T. Lewis, Dymock, Glos.
85B	Dymock Red (25)— 4, Strawberry Nor- man (70)—1, Brown Snout (71)—4 ..	..	0.51	0.22	.. .. 1.026 E. T. Lewis, Dymock, Glos.
86A	Frederick (9)—1, Perthyres (38)—2	..	0.60	0.15	.. .. 1.026 W. P. Marfell, Usk, Mon.
86B	Frederick (9)—1, Perthyres (38)—3	..	0.50	0.16	.. .. 1.025 W. P. Marfell, Usk, Mon.
87A	Frederick (6)—1, Perthyres (36)—4, King of the Or- chard (4)—1 ..	..	0.55	0.14	.. .. 1.026 S. J. Mullins, Dingestow, Mon.
87B	Frederick (6)—1, Perthyres (36)—6, King of the Or- chard (4)—1 ..	..	0.47	0.15	.. .. 1.026 S. J. Mullins, Dingestow, Mon.
88A	Frederick (5)—1, Perthyres (58)—2, Golden Ball (32) —1 ..	..	0.53	0.15	.. .. 1.025 S. W. Mullins, Raglan, Mon.
88B	Frederick (5)—1, Perthyres (58)—1, Golden Ball (32) —4 ..	..	0.51	0.15	.. .. 1.024 S. W. Mullins, Raglan, Mon.

TABLE I.—*continued*.
COMPETITION VARIETIES.

No. Name of Variety.	Date of making.	Specific Gravity of Fresh Juice.	Malic Acid per cent.	Tannin per cent.	Rate of fermentation.	Date of Filtering.	Specific Gravity at time of May, Filtering 1931.	Name and Address of Grower.
CLASS 5.—BLENDS MADE FROM CIDERS ENTERED IN CLASS 1 OR 2; CLASS 3 AND 4, ETC.— <i>contd.</i>								
89A Greasy Red Streak (19)—1, Golden Streak (24)—1, Sweet Alford (54)—2	0.57	0.13	..	..	1.027	G. E. Puddy, Wington, Som.
89B Greasy Red Streak (19)—1, Golden Streak (24)—1, Sweet Alford (54)—4	0.50	0.12	..	..	1.026	G. E. Puddy, Wington, Som.
90A Fair Maid of Devon (17)—1, Colmans (29)—1, Woodbine (51)—2	0.59	0.11	..	..	1.025	J. Walters & Sons, Newton St. Cyres, Devon.
90B Fair Maid of Devon (17)—1, Colmans (29)—1, Woodbine (51)—4	0.53	0.13	..	..	1.025	J. Walters & Sons, Newton St. Cyres, Devon.
91A Kingston Black (1)—1, Royal Wilding (74)—2	0.47	0.19	..	..	1.023	G. Williams & Son, Westhide, Her.
91B Kingston Black (1)—2, Royal Wilding (74)—5	0.46	0.17	..	..	1.022	G. Williams & Son, Westhide, Her.

TABLE I.—continued.

PERRIES.

COMPETITION VARIETIES.

No. Name of Variety.	Date of making.	Specific Gravity of Fresh Juice.	Malic Acid per cent.	Tannin per cent.	Rate of fermentation.	Date of Filtering.	Specific Gravity at time of May, Filtering. 1931.	Name and Address of Grower.
CLASS 6.—PERRIES—								
92 - Blakeney Red ..	14/10/30	1.043	0.45	0.08	5.8	21/10/30	1.030	S. Mills, Dunley, Wor.
93 Blakeney Red ..	22/10/30	1.043	0.51	0.13	4.2	3/11/30	1.030	S. J. Mullins, Dingestow, Mon.
94 Blakeney Red ..	22/10/30	1.040	0.43	0.12	2.0	14/11/30	1.029	A. L. Thomas, Manson, Mon.
95 Blakeney Red ..	22/10/30	1.051	0.44	0.15	3.2	18/12/30	1.030	J. Lloyd, Newent, Glos.
96 Blakeney Red ..	28/10/30	1.051	0.54	0.09	4.0	2/12/30	1.030	H. Knight, Huntley, Glos.
97 Newbolds Pear ..	28/10/30	1.056	0.62	0.08	5.6	14/11/30	1.030	J. E. Bradley, The Newbolds, Mon.
98 Oldfield ..	13/11/30	1.049	0.56	0.10	6.7	2/12/30	1.030	G. Williams & Son, Westhide, Her.
99 Claret ..	26/11/30	1.049	0.44	0.11	5.2	13/12/30	1.030	T. Fawkes, Leonard Stanley, Glos.
100 Claret ..	26/11/30	1.050	0.47	0.10	4.6	19/12/30	1.030	C. G. Ricketts, Dymock, Glos.
101 Butt ..	26/11/30	1.054	0.47	0.23	1.4	30/3/31	1.030	W. P. Merrett, Arlington, Glos.
102 Butt ..	26/11/30	1.053	0.50	0.25	1.8	26/1/31	1.030	A. J. Cook, Norton, Glos.
CIDERS AND PERRIES MADE FROM THE LONG ASHTON TRIAL CIDER ORCHARD.								
103 Cap of Liberty ..	17/11/30	1.042	0.87	0.20	4.3	23/12/30	..	1.029 Long Ashton Trial Orchard.
104 Kingston Black ..	17/11/30	1.048	0.57	0.16	4.6	2/1/31	..	1.029 " " "
105 Lambrook Pippin ..	27/11/30	1.042	0.65	0.21	4.2	16/12/30	..	1.027 " " "
106 Sweet Alford ..	5/11/30	1.041	0.29	0.13	4.6	13/11/30	..	1.020 " " "
107 White Alphonso ..	17/10/30	1.041	0.31	0.14	3.2	30/10/30	..	1.027 " " "
108 Knotted Kernel ..	5/11/30	1.047	0.23	0.36	5.1	1/12/30	..	1.026 " " "
109 Dabinett ..	27/11/30	1.052	0.23	0.29	5.7	29/12/30	..	1.018 " " "
110 Claret Pear ..	20/11/30	1.042	0.42	0.09	4.8	2/12/30	..	1.029 " " "
111 Pint Pear ..	20/11/30	1.043	0.38	0.10	4.2	2/11/30	..	1.027 " " "

TABLE II.
COMPETITION CIDERS AND PERRIES, 1930-31.

JUDGES' AWARDS.

CIDERS.

Class 1. *No.* KINGSTON BLACK. (2 Entries).

First Prize 2 Stead Brothers, Penhow Castle, Newport.

Class 2A. SHARP VARIETIES. (Acidity 0.8% or above).

(13 Entries).

Variety.

First Prize	..	5	S. W. Mullins, Raglan, Mon...	Frederick.
Second Prize	..	15	W. H. Hunt, Easton-in-Gordano, Som. . . .	Hartisman.
Third Prize	..	14	J. T. Shield, Berkeley, Glos...	Cap of Liberty.
Fourth Prize	..	10	H. Knight, Huntley, Glos. . .	Red Streak.
Reserve Prize	..	9	W. P. Marfell, Llangeview, Usk, Mon.	Frederick.

Class 2B. MEDIUM SHARP VARIETIES. (Acidity below 0.8%)
(15 Entries.)

First Prize	..	25	E. T. Lewis, Dymock, Glos.	Dymock Red.
Second Prize	..	23	E. C. Smith, Stoke Abbott, Dorset	Crimson King.
Third Prize	..	16	W. H. Hunt, Easton-in-Gordano, Som. . . .	White Sharp.
Fourth Prize	..	27	W. Wootton, Byford, Hereford	Kempley Red.
Reserve Prize	..	20	H. R. Jenkins, Westhidge, Hereford	Tom Putt.
Highly Commended	29	J. Walters & Sons, Newton St. Cyres, Devon	Colmans.	

Class 3. SWEET VARIETIES. (29 Entries).

First Prize	..	55	H. Daniel, Honiton, Devon..	Tale Sweet.
Second Prize	..	38	W. P. Marfell, Llangeview, Usk, Mon.	Perthyres.
Third Prize	..	52	R. J. Denning, Ilminster, Som.	Woodbine.
Fourth Prize	..	41	E. Down, Pinhoe, Devon . .	Sweet Alford.
Reserve Prize	..	44	S. Cursons, Dunsford, Devon	Slack-ma-girdle.
Highly Commended	51	J. Walters & Sons, Newton St. Cyres, Devon	Woodbine.	

Class 4. BITTERSWEET VARIETIES. (19 Entries).

First Prize	..	67	J. E. Edwards, Norton Canon, Hereford	Knotted Kernel.
Second Prize	..	61	W. R. Thomas, Nunnington, Hereford	White Norman.
Third Prize	..	72	J. Lloyd, Newent, Glos. . .	Strawberry Norman.
Fourth Prize	..	74	G. Williams & Son, Westhidge, Hereford	Royal Wilding.
Reserve Prize	..	65	A. Dibble, Ilminster, Som. . .	Sweet Buckland.
Highly Commended	63	R. Evans, Norton Canon, Hereford	Cummy Norman.	

Class 5.		BLENDS. (26 Entries).	
First Prize	..	87B	S. J. Mullins, Dingestow, Mon.
Second Prize	..	79B	W. Beer, Abergavenny, Mon.
Third Prize	..	86B	W. P. Marfell, Llangeview, Usk, Mon.
Fourth Prize	..	89B	G. E. Puddy, Wrington, Som.
Fifth Prize	..	85B	E. T. Lewis, Dymock, Glos.
Sixth Prize	..	81A	E. Down, Pinhoe, Devon.
Reserve Prize	..	82A	R. Evans, Norton Canon, Hereford.
Highly Commended		79A	W. Beer, Abergavenny, Mon.
"	"	82B	R. Evans, Norton Canon, Hereford.
"	"	83A	W. H. Hunt, Easton-in-Gordano, Som.
"	"	83B	W. H. Hunt, Easton-in-Gordano, Som.
"	"	84B	H. R. Jenkins, Westhild, Hereford.
"	"	86A	W. P. Marfell, Llangeview, Usk, Mon.
"	"	90A	J. Walters & Son, Newton St. Cyres, Devon.
Class 6.		PERRIES. (11 Entries).	Variety.
First Prize	..	98	G. Williams & Son, Westhild, Hereford Oldfield.
Second Prize	..	100	C. G. Ricketts, Dymock, Glos. Claret.
Third Prize	..	92	S. Mills, Dunley, Wores. .. Blakeney Red.
Fourth Prize	..	102	A. J. Cook, Norton, Glos. .. Butt.
Reserve Prize	..	93	S. J. Mullins, Dingestow, Mon. Blakeney Red.

THE IMPROVEMENT OF FARM-MADE CIDER.

By P. T. H. Pickford.

Since the Bath and West Society started its first experiments on cider-making at Butleigh Court, Somerset, with the object of effecting an improvement in the standard of cider as commonly made on the farms at that time, there has gradually developed a remarkable change in the position of cider as a beverage in this country. Instead of being a drink mainly confined to the cider making counties in the West of England,—and there largely restricted to the consumers in the country districts on the farms and in the villages,—it has now come into far more general favour and is a popular drink throughout the British Isles.

This article is not concerned with the causes of this change, but the subject with which it deals is a direct outcome of the effects on the cider industry from the farmer's point of view.

There has arisen a growing demand for a high quality cider by the general public to whom cider as a palatable beverage was formerly almost unknown.

The increasing number of people who have recently adopted cider as a daily beverage are not, however, content with the type of cider which passes under the name of "farmhouse" cider—

generally a type which is completely "dry" and more or less acetified. The demand now is for a more refined sweet or medium sweet cider with a slightly brisk flavour and free from any taint of acetification. A cider of this type now has a market value much higher than the rough "farmhouse" product.

While a limited number of farmers who have kept abreast of modern methods of cider-making and have specialised in producing the type of beverage now popular have profited as a result, the factory-made article has held by far the greatest share of the market. The average farmer who still continues to make cider in preference to selling his apples to the factories has been gradually forced into a difficult position. The old practice of supplying cider to the farm labourers is rapidly dying out, the former outlet for the surplus—the local public houses—is being closed to a large extent owing to the breweries tying their houses to cider supplied by themselves, and "farmhouse" cider commands little sale in other directions. Consequently, during the last few years, there has been general concern among farmer cider-makers to produce a more marketable article.

THE PROVISION OF LOCAL INSTRUCTION IN CIDER-MAKING.

To meet the case, the Agricultural Education Departments of the counties concerned have extended their activities in the direction of cider-making instruction. Some have provided their own instructors on orcharding and cider-making, who have kept in close touch with Long Ashton. Three counties—Dorset, Monmouth, and Worcester—decided to participate in a conjoint scheme administered direct from Long Ashton. This scheme came into operation in 1926, and an account of the work in connection therewith is the main purpose of this article. An endeavour will be made at the same time to indicate in outline the methods of cider-making commonly found practised, and the directions in which they can be readily modified to render them capable of yielding a product suited for the present-day market.

The Cider Instruction Scheme which involves the counties of Dorset, Monmouth and Worcester was commenced in 1926 with the objects of improving the standard of cider-making on the farm and of assisting and encouraging the farmer to produce a more palatable type of cider as a profitable branch of the farming industry.

It is organised from the National Fruit and Cider Institute, Long Ashton, where the Instructor has his headquarters and is able

to keep in close touch with the current research on the subject there. From this centre, the Instructor visits the respective counties in turn, providing the farmer with individual assistance and keeping him in touch with the most up-to-date methods of cider-making.

In the early stages of the work, when a general survey of the cider districts was made, a definite conclusion was reached regarding the farmer and the cider industry. It was evident that unless the farmer improved the standard of his cider and his methods of making, the market for his cider would be lost. It was also clear that, unless he was prepared to give more care and attention to cider-making, it would be more profitable for him to sell his apples. The tying of local public houses to factory cider was already taking place in many districts, and was seriously interfering with the disposal of draught cider made on the farm. As the bottling trade was developing and this is by far the most profitable line— the farmer-maker was encouraged to produce this type.

Following this general survey of the districts, the Instructor commenced his work in the autumn of 1926 by arranging demonstration lectures at various centres in each county, giving the farmers an outline of modern cider-making methods. These were then followed up by paying individual visits to the farmers, giving them advice and assistance to meet their particular problems.

In the first year of the scheme, several farmers in each county placed themselves almost entirely in the hands of the Instructor. After an examination of their available apples, a suitable blend was advised, and the cider was made strictly under the Instructor's supervision. Frequent visits followed during the fermenting period when personal instruction was given regarding the control of fermentation. These were supplemented by later visits at which filtration and other methods of arresting fermentation, storage, bottling and other post-fermentation matters were dealt with.

The following particulars will give some indication of the extent of the work.

The number of visits paid to farmers was as follows :—

			DORSET.	MONMOUTH.	WORCESTER.	TOTAL.
1926-27	..	..	72	78	81	231
1927-28	..	..	80	79	87	246
1928-29	..	..	131	84	96	301
1929-30	..	..	113	92	97	302
1930-31	..	..	109	101	104	314

Demonstration lectures on cider-making have been given on farms as follows :—

1926-27.	DORSET	..	Stoke Abbot (25), Storridge (12), Waytown, Netherbury (15).
	MONMOUTH	..	Usk (24), Bishton (13), Rockfield (12), Abergavenny (10), Rhiwderin (10).
	WORCESTER	..	Corse Lawn (11), Bushley (12), Newnham (15).
1927-28.	DORSET	..	Melplash (9), Netherbury (12), Stoke Abbott (15).
	MONMOUTH	..	Raglan (14), Mathern (10), Mitchel Troy (16), Llangattock (30).
	WORCESTER	..	Corse Lawn (16), Tenbury (11).
1928-29.	DORSET	..	Chideock (22), Blandford (10).
	MONMOUTH	..	Usk (27), Nantyderry (10), Skenfrith (6).
	WORCESTER	..	Welland (11), Newnham (16).
1929-30.	DORSET	..	Hamoon (17).
	MONMOUTH	..	Llantrisant, Usk (22).
	WORCESTER	..	Great Whitley (19).
1930-31.	DORSET	..	Puddletrenthide (24).
	MONMOUTH	..	Llanarth (14), Hendre (17), Llanvapley (25).

(The numbers in brackets show the attendances at the respective demonstrations).

Demonstrations on the filtering of cider have been given at the following centres :

1928-29.	DORSET	..	Bridport, Blandford, Farrington, Wimborne.
	MONMOUTH	..	Rhiwderin, Twyn-y-Sherrif, Nantyderry, Llantilio, Mitchell Troy, Court Perrot.
1929-30.	DORSET	..	Netherbury, Eype, Puddletrenthide, Melplash, Gillingham, Farrington.
	MONMOUTH	..	Caerleon, Rhiwderin, Rockfield, Tredunnoc, Raglan, Llantilio.
	WORCESTER	..	Great Whitley, Cotheridge.
1930-31.	DORSET	..	Shillingstone, Blandford, Milton, Broadoak, Bridport.
	MONMOUTH	..	Caerleon, Llanvair, Llantilio, Llanvetherine, Llangattock, Dingestow, Pentwyn.
	WORCESTER	..	Lyppard.

Although, at the commencement of the work, it was found that the art of cider-making was, on the whole, more advanced in Worcester than in Dorset and Monmouth, satisfactory progress was soon made in the two latter counties.

In Dorset, a keen interest was taken and a Federation of Farm Cider-Makers was instituted through a local branch of the Farmers' Union. The main object of the Federation has been to encourage a high standard of quality in the cider produced by its members. It has been invaluable by way of procuring the National Mark for its members, who do not produce a large enough quantity of cider to enable them to obtain the Mark individually.

The cider produced in this county was found to be of the low acid type, and a great deal of time has had to be spent on eliminating the risk of such disorders as "sickness" and "ropiness" by careful selection of varieties and by judicious blending.

In Monmouth, where a wider area has had to be covered, advancement has been more gradual, but ample material for the production of good cider was found. The filtering demonstrations were greatly assisted in this county when a filter for this purpose was procured by the Farm Institute at Usk.

The system of cider-making in Monmouth by means of the travelling mill is still in vogue. A disadvantage of this system is the difficulty which is so often experienced of obtaining the mill at the right time. With the installation of an up-to-date cider-making plant at the Usk Farm Institute, it will now be possible, however, to assist farmers in that district by milling and pressing their fruit at this centre and giving them the best return possible. The installation of the plant will also make it possible for the students there to get an insight into modern methods of cider-making.

In Worcester, where cider-making is generally practised on more scientific lines, problems of a more advanced nature have been dealt with. Work on such problems as the controlling of the deposit in bottled cider has been taken up to some extent, and experiments on disgorging and pasteurising bottled cider have been undertaken.

New interest has been taken in cider-making in the commercial fruit-growing districts in the county. In these localities, where increasing quantities of "cull" fruit have become available for cider, the problems of judicious blending of varieties and of the addition of vintage apples necessary to produce a reasonably good beverage, are growing acute.

A SURVEY OF FARM CIDER-MAKING PRACTICE.

Passing on to the matters of detail in cider-making which were found in the course of the work to require special attention, lack of knowledge on two points of fundamental importance, (a) the quality and appropriate mode of use of the varieties of apples, and (b) the control of fermentation, immediately showed itself as the chief general reason for the failure to produce cider suited for modern requirements.

Apple Varieties and their Uses. It was found that in many districts little was really known of the value of the individual

varieties of cider apples. Although hundreds of varieties have been tested at the Cider Institute from time to time, yet numerous local, unknown varieties were encountered in the older orchards, and had to be examined in order to obtain some idea of proportioning them for blending suitably.

Where sufficient quantities of unknown varieties were available, it was possible to send them to the Cider Institute for trial in the annual Cider Competitions there; but, where the quantities were only small, some knowledge of their value was obtained from the analysis of the juice expressed from small samples.

A large number of more or less inferior varieties were found, and the farmers were advised to adopt the system of keeping them separate for "haymaking" cider, and concentrating on the best sorts only for the best cider.

The selection of the fruit is the primary factor governing the quality of the cider. Too often it was found that the practice was merely to express the juice from all the available apples on the farm together indiscriminately, despite their varying stages of ripeness, and with no thought of mixing them in a manner to balance the qualities of the various types.

The classes of apples had to be studied to enable the farmer to discriminate between sharp, sweet and bittersweet varieties. Here the taste of the apple was found adequate as a simple and useful guide.

Where sufficiently large quantities of single varieties were available, the best results were obtained by storing them separately and making them up separately, subsequently blending the ciders after fermentation; but, in the majority of cases, the farmer had not sufficient quantity of any single variety to enable him to do this, and he had to rely on mixing his apples according to their season of ripeness—sharp, sweet and bittersweet varieties in suitable proportions. The type of cider desired by the consumer and the varying sharpness or bitterness of the varieties must determine the exact proportions: but as a general guide had to be given, the suggested proportion was from one to two parts of sharp fruit, one part of sweet and one part of bittersweet fruit, as constituting a fairly widely approved mixture, giving a juice of an acidity about 0.5 per cent., and from 0.15 per cent. to 0.2 per cent. of tannin.

It was pointed out to the farmer how the quality of the cider is determined to a large extent by the vintage quality of the fruit. In selecting varieties when planting young trees or when head-working older trees, the farmer has been recommended to insist on

having only varieties which have now been proved capable of producing cider of the highest grade and the trees of which are strong, clean and healthy.

Very useful information regarding the growth and suitability of particular varieties in their respective districts can now be obtained from the Trial Cider Orchards, which have been distributed over the cider districts of the West of England for this purpose.

Fermentation Control. The control of the fermentation was found to be the chief problem connected with cider-making on the farm. The aim was to produce a reasonably sweet cider for bottling.

Racking, combined with sulphuring, was demonstrated to a great extent and was found to be beneficial up to a point. In a few cases where the cider fermented slowly, this was sufficient to arrest the fermentation at the point where the required amount of sugar was left in the juice, but, on the whole, it was found that the results were too precarious, and such methods could not be relied on.

It soon became apparent that a filtering machine was essential to farmers in the regular production of a sweet cider suitable for bottling.

The next step, therefore, was to demonstrate the filtration of cider on the farm. A filter was lent by the Cider Institute for this purpose. The machine was taken to the farm when the cider had reached the required gravity, and the method of filtration was then demonstrated to the farmer. Demonstrations of this nature have since been given from year to year, covering in turn different districts. The usefulness of these demonstrations has been shown by the increasing number of farmers who have installed filters of their own.

Following the filtering demonstrations, the farmer was encouraged to bottle a small quantity of the cider as a trial. The successful results obtained from these trials proved to the farmer that it was a line worthy of development. As a good market was found for this class of cider, while the draught cider was becoming more difficult to dispose of, the quantity of bottled cider was gradually increased each year.

In order to develop this type of cider, a filter had to be installed. This meant an outlay of £30, being the cost of the smallest filter of the approved type, together with a pulp-washer. This expense was not a practical proposition until the farmer had established a considerable market for bottled cider. In some districts, however, the farmers overcame the difficulty by co-operatively purchasing

a machine. In others, one farmer invested in a machine and filtered his neighbours' cider for a small charge. In this manner the scheme has developed and gradually, as the farmers increase their output of bottled cider, they are able to instal filters individually.

Although, as has been shown, the selection of varieties and the control of the fermentation were found to be the two most outstanding problems of the work, yet numerous other details regarding the farmers' methods of cider-making had to be improved in order to obtain good results.

Fruit Storage. Most farmers realised the necessity of storing the fruit in order to bring it to the ideal condition of ripeness before milling, but this was often done in a very careless manner. On the farm, storage under ideal conditions is not often possible, but the apples can be adequately stored out in the orchard on a floor of wooden planks, using hurdles to form bins. They are not liable to heat as long as the heaps are not more than 2 feet in depth.

Fruit Cleansing. Many farmers were under the impression that the cleanliness of the fruit was of no importance, because any dirt or soil with it would be discharged during the "working." Not alone from a hygienic point of view should the apples be clean: it was found that a better fermentation was obtained from clean fruit.

The washing of the fruit has been done occasionally on the farm when it was found to be very dirty and objectionable, but this was only done with a certain amount of difficulty by raking the apples through troughs of water. It was felt that washing was not necessary so long as the apples were stored under clean conditions.

Milling and Pressing. Very old types of mills were found to be still in use on the farms, the majority of which were either of the "tooth" or "scratcher" type, though the old circular stone mill was often found to be still employed.

Several farmers have recently invested in the modern "grater" mill and are finding that the higher yield of juice obtained from this soon pays for its cost.

The old farm presses were found to be very efficient in spite of their antiquity and, combined with a modern mill, give almost as high a yield of juice as the modern hydraulic press, although they are comparatively slow.

The building of the "cheese" with straw was still found to be the practice in some parts of Dorset and Monmouth. The use of horsehair press cloths was quite common, but these have recently

been replaced to a large extent by coco-fibre or manilla which are lighter to handle and easier to keep clean.

The introduction of cotton cloths was not successful. Owing to the rather uneven pressure which cannot be avoided with the old farm screw-presses, they were quickly torn. For this same reason, the use of racks between the layers of pomace could not be introduced. They soon became broken.

Maceration of the pomace was found to be very rarely practised, except in the case of re-soaking the pomace before pressing a second time.

The addition of varying quantities of water was a common practice with some farmers. It was suggested by them that the keeping quality of the juice was improved by the addition of water, but the writer's own experience has been that a watered "farm-house" cider is slightly more palatable than that without water only because the acetification is somewhat diluted by the addition of water.

The farmers were encouraged in any case to keep strictly to pure juice for bottling cider, for the sake of its good reputation.

Cask Treatment. The importance of the condition of the casks was treated very lightly by many farmers. It was disappointing to find a cider that would otherwise have been valuable spoiled by a cask taint.

The importance of a clean cask has constantly been emphasised, and the use of bisulphite of lime as an antiseptic has been recommended to keep casks sweet when empty; also the annual taking out of the heads and cleaning thoroughly has been advised.

Specific Gravity Records. The use of the hydrometer in farm cider-making was almost unheard of.

The advantage of the practice of recording the specific gravity of the juice at regular intervals during the fermentation, as a guide to its behaviour, has been instilled into the farmers.

Racking and Sulphuring. Racking and sulphuring were practised to some extent, but often only in a haphazard manner, which may or may not give good results. Sulphuring, by burning sulphur matches in the empty cask, was done more with the idea of keeping the cask sweet than as a means of controlling the fermentation of the juice.

Although filtering the juice has now been adopted for the control of the fermentation, yet racking and judicious sulphuring are still recommended in addition.

It has been found that racking and sulphuring as a rule checks even quickly fermenting juices to some degree, and this checking of the fermentation often results in a cleaner juice which eases the filtering operation.

Bottling. In the production of bottled cider, the farmer soon found that careful management was necessary in order to bring about just sufficient effervescence in the cider. Too much gas and too much deposit in the bottle often occurred ; this was objectionable to the consumer and lowered the value of the cider.

Imperfect and mis-timed filtration were reasons for this occurrence in many cases and the system of double filtration was advised. The cider was filtered in the first place to arrest fermentation at the required specific gravity, and a second filtration prior to bottling, reduced the amount of after fermentation in the bottle considerably.

As the correct time to bottle varies with individual ciders, the Instructor has made it a practice to test samples from the farmers by incubation at Long Ashton, advising the makers on the correct time to bottle from the result of this test.

Acetification. Finally, some reference to the widespread prevalence of acetification in farm-made ciders must be made. While in occasional instances there is little room for criticism in this respect, much "farmhouse" cider shows the acetic character which has brought disrepute upon the class generally.

Two main reasons for the development of this taint have been observed during the course of the work :—(a) lack of care in the handling and storage of the fruit, resulting in the occurrence of acetification prior to milling and pressing, and (b) failure to exclude air from the liquor during the period when fermentation is subsiding, and afterwards during the storage period.

The simple precautions necessary to prevent acetification have been constantly stressed by the Instructor, and a marked improvement has been shown in the produce of the farmers who have availed themselves of his services.

CONCLUSIONS.

The work of the Instruction Scheme has led to the conclusion that, if the farmer is prepared to give the necessary attention to the production of cider, it can be turned into a profitable branch of farming. Several farmers who produce regularly a bottling cider have no difficulty in disposing of it at a price of 15/- to 20/- per dozen (champagne quarts), leaving a very considerable nett profit. Even with a lower price of 10/- to 12/- per dozen, bottled cider is

much more profitable than the old fashioned " farmhouse " draught cider, which is often sold for 8d. or 10d. a gallon.

As far as the future of the cider industry on the farm is concerned, it is felt that more co-operation amongst the farmers is necessary.

In districts where a number of farmers are each producing comparatively small quantities of cider, the development of a local central factory would prove beneficial. The bulking of the smaller quantities of cider under such a scheme would result in a cider of a uniform character being produced in the district. It would also allow for the employment of more specialised labour and for the installation of more efficient and up-to-date machinery than would be economic for the individual small maker to invest in.

THE CLARIFICATION OF CIDER BY THE CENTRIFUGE METHOD—II.

By O. Grove.

Experiments on this subject were described in last year's report and a further series has been conducted during the 1930-31 season. These fall into two groups :—(1) fermentation control and (2) comparative trials of different types of centrifuges.

(1) Fermentation Control.

(a) During the beginning of December, 1930, the contents of 40 casks, containing each about 120 gallons of fermenting juice made from mixed apples, were passed through the Sharples centrifuge. The specific gravities of the different juices varied from 1.021 to 1.032 at the time of centrifuging. The casks were kept at ordinary temperature, the specific gravity of the juices being taken at intervals. At the end of March, 1931, about half of the casks showed a loss of 2 points in specific gravity : of the other half, 3 casks showed a drop of 4 points, the rest having lost 3 points.

(b) Similar casks containing juices fermented down to specific gravities varying from 1.012 to 1.016 and centrifuged at the same period showed drops of 1 or 2 points in specific gravity after 4 months at ordinary temperature.

In both sets of experiments, control casks of uncentrifuged juice fermented to dryness in 8—10 weeks.

It will be noted that the check to the fermentation in cask by the centrifuging of the fermenting juices was a very definite one,

and it confirms the results obtained last year with centrifuged ciders kept in bottles.

All the juices used for the above experiments showed medium rates of fermentation.

(c) Experiments were also done with a juice having a very high rate of fermentation (Morgan Sweet). The juices were centrifuged at the following specific gravities: 1.012, 1.020, 1.027, 1.038 and 1.042. Some of the centrifuged juice was bottled and the remainder put in casks immediately after centrifuging.

With regard to the bottled samples, the specific gravities were after 4 months: 1.011, 1.016, 1.016, 1.021 and 1.030 respectively. With the exception of the two first lots, the fall in specific gravity was very large and several of the bottles burst after a time because of the excessive pressure developed. There were also heavy yeast deposits.

The cask samples, kept in casks of 15 gallons capacity, were all completely fermented after 4 months.

These results indicate that it is difficult to give a decisive check to the fermentation by centrifuging juices with very high rates of fermentation. Probably a second passage through the centrifuge after a suitable interval would have improved the results. This point is being tested during the 1931-32 season.

(2) Comparative Trials of Different Types of Centrifuges.

Some comparative tests were done with two centrifuges of different construction, viz., the Sharples centrifuge and an Alfa-Laval model. Details of these trials will be found in the table below. It appears from them that there was very little difference in the action of the two different types of centrifuges.

Another form of centrifuge is now under test. This is the continuous Alfa-Laval model, which is used in yeast factories for the separation of the yeast from the fermented wash. With a centrifuge of this construction it is possible to separate the fermenting juices in two lots; one part, about 10%, of a rather thick liquid containing the yeast and another part, about 90%, of cleared juice. The thick part can be left to settle for a few days and passed through the centrifuge again. The advantage of a centrifuge of this type is that it is continuous. About 200 gallons per hour can be dealt with with the size used for the present experiments.

The results in this case are not yet sufficiently advanced to report upon at the time of writing.

Experiments on Fermentation Control and Clarification. Treatment by Centrifuge Compared with Filtration.

No.	Name of Variety.	Date of Making.	Specific Gravity of Fresh Juice.	Malic Acid per cent.	Tannin per cent.	Rate of Fermentation.	Date of Filtering or Centrifuging.	Specific Gravity at time of Filtering or Centrifuging.	Specific Gravity, May 1931
121	Colmans (29)	18/11/30	1.044	0.75	0.15	5.0	filtered	1.030	1.029
122	"	"	"	"	"	"	centrifuged (Laval)	"	1.027
123	"	"	"	"	"	"	(Sharples)	"	1.027
124	Woodbine (50)	13/11/30	1.055	0.40	0.16	5.7	filtered	1.025	1.024
125	"	"	"	"	"	"	centrifuged (Laval)	"	1.025
126	"	"	"	"	"	"	(Sharples)	"	1.024
127	Pear Pine (56)	17/11/30	1.044	0.22	0.11	6.2	filtered	1.023	1.023
128	"	"	"	"	"	"	centrifuged (Laval)	"	1.024
129	"	"	"	"	"	"	(Sharples)	"	1.024
130	Pound Apple (57)	18/11/30	1.050	0.39	0.17	5.3	filtered	"	1.024
131	"	"	"	"	"	"	centrifuged (Laval)	"	1.023
132	"	"	"	"	"	"	(Sharples)	"	1.024
133	Royal Wilding (68)	7/11/30	1.051	0.25	0.22	7.6	filtered	"	1.020
134	"	"	"	"	"	"	centrifuged (Laval)	"	1.020
135	"	"	"	"	"	"	(Sharples)	"	1.020
136	French (75)	20/11/30	1.046	0.26	0.34	5.8	filtered	"	1.024
137	"	"	"	"	"	"	centrifuged (Laval)	"	1.025
138	"	"	"	"	"	"	(Sharples)	"	1.024
139	Mixed Apples No. 1	6/10/30	1.045	0.54	0.17	"	filtered	1.021	1.020
140	"	"	"	"	"	"	centrifuged	"	1.020
141	Mixed Apples No. 4	1/11/30	1.048	0.46	0.15	"	centrifuged (Laval)	1.032	1.031 (1)
142	"	"	"	"	"	"	(Sharples)	"	1.030 (2)
143	Mixed Apples No. 6	27/11/30	1.045	0.49	0.17	"	centrifuged (Laval)	1.026	1.023 (3)
144	"	"	"	"	"	"	(Sharples)	"	1.022 (4)

(1) Specific gravity of sample in cask

(3) " " " "

1.028.

..

..

1.021.

(2) Specific gravity of sample in cask

(4) " " " "

1.023.

..

..

1.020.

THE EFFECT OF STORAGE TEMPERATURE ON CIDER.—III.*By O. Grove.*

In continuation of the series of experiments on this subject described in last year's report, four different ciders were bottled in the spring of 1931 and placed in cold storage (Temperature 1°C.) for varying periods. The object was to get further evidence as to the period of cold storage necessary to check excessive after-fermentation in the bottles, and also to find out at which time after bottling the period can best be introduced.

The ciders were selected blends of different degrees of sweetness. They were bottled on the 1st April, when they gave the following figures for specific gravity, acid and tannin :—

		Specific Gravity.	Acid % (as Malic).	Tannin %
Blend A	..	1.017	0.52	0.16
„ B	..	1.014	0.47	0.15
„ C	..	1.018	0.55	0.20
„ D	..	1.026	0.56	0.21

In each instance 20 sets of samples were used.

As indicated in the table which follows, the samples 7-12 were kept one month, and the samples 13-18 two months, at ordinary temperature before placing them in cold storage for different periods. The samples 1-6 were put in cold store immediately after bottling and removed to ordinary temperature after different periods of cold storage.

Only the specific gravities and the degree of effervescence are given in the table as being sufficient evidence of the fermentations, which had taken place in the bottles. The state of effervescence is indicated thus :—0 = none, 1 = slight, 2 = good, 3 = strong, 4 = vigorous effervescence. The two last figures, 4 especially, indicate too much effervescence for commercial purposes.

With regard to Cider A, the control sample (20), kept at ordinary temperature, had developed too much fermentation during the six months over which the experiments extended. A sufficient check was obtained with one or, better, one and a half months' cold storage, and it did not make any discernible difference whether the period was applied after one or two months at ordinary temperature or immediately after bottling.

TABLE I.

No. of Sample.	Date of placing in Cold Store.	Date of removal from Cold Store.	Period of Cold Storage.	Cider A.		Cider B.		Cider C.		Cider D.		Cider D. Acid Percentage (as male). Dec. 1931.
				Specific Gravity.	Effervescence.	Specific Gravity.	Effervescence.	Specific Gravity.	Effervescence.	Specific Gravity.	Effervescence.	
1	1 April	1 May	1 month	1.016	2	1.012	2	1.015	3	1.023	4	0.31
2	"	15 "	1½ "	1.016	2	1.012	2	1.015	3	1.023	4	0.31
3	"	1 June	2 months	1.016	2	1.016	2	1.016	2	1.024	3	0.30
4	"	15 "	2½ "	1.016	2	1.012	2	1.016	2	1.023	4	0.29
5	"	1 July	3 "	1.016	2	1.013	2	1.016	2	1.024	3	0.30
6	"	1 Aug.	4 "	1.017	1	1.014	1	1.017	2	1.024	3	0.30
7	1 May	1 June	1 month	1.016	2	1.012	2	1.016	2	1.023	4	0.32
8	"	15 "	1½ months	1.016	2	1.012	2	1.016	2	1.023	4	0.31
9	"	1 July	2 "	1.016	2	1.013	2	1.016	2	1.023	4	0.32
10	"	15 "	2½ "	1.016	2	1.013	2	1.016	2	1.023	4	0.38
11	"	1 Aug.	3 "	1.016	2	1.013	2	1.017	1	1.024	3	0.33
12	"	1 Sept.	4 "	1.016	1	1.014	1	1.018	0	1.025	2	0.41
13	1 June	1 July	1 month	1.016	2	1.013	2	1.015	3	1.023	4	0.30
14	"	15 "	1½ months	1.016	2	1.012	2	1.017	2	1.024	3	0.30
15	"	1 Aug.	2 "	1.016	2	1.012	2	1.017	2	1.023	3	0.28
16	"	15 "	2½ "	1.016	2	1.013	2	1.016	2	1.023	3	0.29
17	"	1 Sept.	3 "	1.017	1	1.013	2	1.017	1	1.025	2	0.36
18	"	1 Oct.	4 "	1.017	1	1.014	1	1.016	2	1.024	3	0.35
19	1 April	1 "	6 "	1.017	0	1.014	0	1.018	1	1.026	0	0.42
20	At Ordinary Temp.	At Ordinary Temp.	—	1.015	3	1.012	2	1.015	3	1.020	4	0.32

Similar results were obtained with Cider C, although in this case a period of about two months' cold storage was necessary to keep the fermentation in bottle within bounds.

In the case of Cider B, which started at the specific gravity of 1.014, cold storage was of no advantage, as the control sample (20) kept at ordinary temperature did not show too much fermentation in the bottles.

Cider D, which was bottled at a comparatively high specific gravity (1.026), showed a vigorous fermentation in the control bottles (20), and although a shorter period of cold storage had some effect on the rate of fermentation, at least three months were necessary to check the fermentation sufficiently.

The last column in the table indicates the acid percentage (as malic acid) in Cider D. The acid determinations were made in December 1931. It will be seen that a cold storage period of three to four months checked to some extent the drop in acidity, although this was not the case with the samples 5 and 6, which, at the time of the acid determination, had been out of cold store six and five months respectively.

CONCLUSIONS.

It is evident from these results that the response of different ciders to cold storage treatment is not entirely uniform, the behaviour being closely related to the capacity for residual fermentation inherent in the individual cider concerned. This, as research in other directions has shown, is associated with the amount of nitrogenous material remaining in the cider at the time of bottling.

From this it may be concluded that, for ciders of the sweet or medium sweet types, a period of from one to two months' cold storage is effective in maintaining in good condition the naturally conditioned bottled article for a considerably longer period than is possible by storage at ordinary cellar temperature, provided that the cider in question is in suitable condition for bottling in respect of capacity for residual fermentation. In such cases, the actual time during the summer months at which the cold storage is applied appears to be immaterial.

For low gravity ciders in which there remains little or no capacity for residual fermentation, cold storage offers little, if any advantages.

For ciders bottled prematurely and subject to excessive after-fermentation in bottle, a limited period of cold storage treatment does not suffice to keep this fermentation in adequate check for any useful period of time after removal from the store.

Bath and West and Southern Counties Society.

BRISTOL MEETING, 1931.

JUDGES.

HORSES.

Shire.—THOS. FORSHAW, The Stud, Carlton-on-Trent, Newark.

Percherons.—E. GUY FENWICK, North Luffenham Hall, Stamford.

Any Agricultural (Local).—G. F. ALDRIDGE.

Hunters (Breeding Classes).—E. GUY FENWICK, North Luffenham Hall, Stamford.

Hunters (Riding Classes).—Major V. D. S. WILLIAMS, Greens Norton Court, Towcester.

Arabs.—Lt.-Col. P. D. STEWART, D.S.O., Chadshunt, Kineton.

Polo and Riding Ponies.—Col. F. B. HURNDALL, Coleby Hall, Lincoln.

Shetland Ponies.—A. SMILES, Monks Green, Fetcham, Leatherhead, Surrey.

Welsh Mountain Ponies.—T. E. JENKINS, Kilvrough Park, Parkmill, Swansea.

Exmoor Ponies.—Lord POLTIMORE, M.F.H., Court Hall, North Molton, Devon.

Riding.—Major V. D. S. WILLIAMS, Greens Norton Court, Towcester.

Driving.—A. R. FISH, "Holme Mead," Hutton, near Preston.

Local Tradesmen.—Sir H. H. A. HOARE, Bart., Stourhead, Zeals, Wilts.

Ladies' Hacks.—Mrs. HESELTINE, East Knoyle, Wilts.

Jumping.—Lt.-Col. Lord WYNFORD, D.S.O., Wynford House, Maiden Newton, Dorset.

CATTLE.

Devon.—F. J. YENDELL, Upcott, North Molton, Devon.

South Devon.—J. LUSCOMBE, Manor Farm, North Huish, South Brent, Devon.

Shorthorn.—MURRAY CONACHER, The Royal Farms, Windsor.

Dairy Shorthorn.—R. HOBBS, Kelmscott, Lechlade, Glos.

Hereford.—C. H. MORRIS, Weston Court, Pembridge, Herefordshire.

Gloucestershire.—A. JONES, Bowcott Farm, Wotton-under-Edge, Glos.

British Friesian.—A. WEIGHTMAN, Middle Herrington Dairy Farm, Sunderland.

Aberdeen Angus.—G. F. BARRON, Summers Hall, Withersfield, Braintree, Essex.

Red Poll.—J. E. QUESTED, The Firs, Cheriton, Kent.

Ayrshire.—R. DICKIE, Knockenjig, Kirkconnell, N.B.

Blue Albion.—T. H. CALDERBANK, The Hall, Stow St. Mary, Chelmsford.

Jersey.—L. G. TUBBS, c/o Messrs. Innes, Sons & King, Ltd., Hartford Works, Hitchin, Herts.

Guernsey.—H. H. LAITY, Bosistow, Porthcurnow, Cornwall.

Dexter.—E. P. F. SUTTON, Erleigh Park, near Reading.

Dairy.—EARL OF RADNOR, Longford Castle, Salisbury.

SHEEP.

Devon Longwooled.—E. LAWRENCE, Veryards, Cullompton, Devon.

Devon Close Wool.—D. N. PURCHASE, Great Hele Barton, South Molton.

Hampshire Down.—W. H. DEAN, Place Farm, Tisbury, Wilts.

Oxford Down.—W. TREVETHAN, Broadstone Hill Farm, Chipping Norton.

Dorset Down.—R. H. SNOW, All Hallows, St. Giles, Salisbury.

Exmoor Horn.—W. G. THORNE, Higherhouse, Twitchen, South Molton, Devon.

Ryeland.—W. REES PROSSER, Cefn Brynich, Brecon.

Kerry Hill.—C. H. HOBBS, Abertanat, Llanblodwel, Salop.

GOATS.

T. W. PALMER, 10, Lloyds Avenue, London, E.C.3.

PIGS.

Berkshire.—E. PALMER, Highclere, Peppard, Henley-on-Thames.

Large Black.—JOHN WARNE, Tregonhayne Manor, Tregoney, Gram-pound Road, Cornwall.

Large White and Tamworth.—F. WEBB, Billington Estate Office, Leighton Buzzard.

Middle White.—A. LENEY, Little Haven, Dibden Purlieu, Hythe, Southampton.

Gloucestershire Old Spots.—J. F. WRIGHT, Olton Farm, Solihull, Warwick.

Wessex Saddleback.—R. J. W. DAWSON, Estate Office, Temple Dinsley, Hitchin, Herts.

National Long White Lop-Eared.—M. H. MOORE, The Hellyers, Ipplepen, Newton Abbot.

POULTRY.

H. S. ANTHONY, House Farm, Euxton, Chorley, Lancs.

R. FLETCHER HEARNshaw, Fox Hill, Burton Joyce, Nottingham.

PIGEONS.

A. T. JUPE, 105, Lordship Lane, East Dulwich, London, S.E.

RABBITS.

F. B. ROBERTS, 32, Windmill Road, Croydon, Surrey.

PRODUCE.

Cider.—OTTO GROVE, Agricultural Research Station, Long Ashton, Bristol.

Cheese.—G. W. SYMONDS, Market Street, Wells, Somerset.

Cream Cheese, Butter and Cream.—Miss E. BRAY, Devon County Council Offices, 1, Richmond Road, Exeter.

COMPETITIONS.

Butter-Making and Junket-Making.—Miss A. J. W. NICHOLAS, County Hall, Truro.

(Champion Class).—A. TODD, British Dairy Institute, The University, Reading.

Sheep Shearing.—W. KING, The Laurels, Chew Stoke.

Rope Splicing and Knotting.—Comdr. A. McC. PAKENHAM, Mount Beacon, Bath.

Shoeling.—J. C. MORRIS, F.W.C.F., 115, St. Vincent Street, Ladywood, Birmingham.

MILK RECORDED, DAIRY AND PIG HERDS.

W. NIXON, Great Pinley, Claverdon, Warwick.

W. H. HITCH, Mordiford, London Road, Charlton Kings, Cheltenham.

FORESTRY.

R. S. PEARSON, Forest Products Research Lab., Princes Risborough, Bucks.

The DUKE OF BEAUFORT, G.C.V.O., Badminton, Glos. (Hunting Gates).

SMALL HOLDINGS.

E. PRITCHARD, Wood Hill Park, Wootton Bassett, Wilts.

PRIZE AWARDS, 1931.

*** An animal designated in this list as the "reserve number" is entitled *conditionally*, to succeed to any Prize that may become vacant in its class by reason of the animal placed above it by the Judges afterwards failing to qualify.

† Animals, where not otherwise stated, may be considered to have been bred by the Exhibitor.

ABBREVIATIONS EXPLAINED :—s., sire ; d., dam ; s.d., sire of dam ; y., year ; m., month ; w., week ; d., day ; R., Reserve ; V.H.C., Very Highly Commended ; H.C., Highly Commended ; C., Commended.

The Prizes in Classes 43 and 44 and the Special Local Prize in the Shire Horse Classes were offered by the Bristol Society of Merchant Venturers and the Prizes in Classes 12, 50, 51, 57, 60, 148, 149, the Special Local Prizes in the Children's Riding and Jumping Classes, £34 towards the general Prizes, and the Prizes for Milk Recorded, Dairy and Pig Herds and for Sheep Shearing and Rope Splicing were contributed by the Bristol Local Committee.

HORSES.

SHIRE.

(Registered or eligible for registration in the Shire Horse Society's StudBook).

CLASS 1.—*Shire Mare, in-foal, or with foal at foot.* [3 entries.]

I. (£10.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, black, **Hay End Dark Lady** (123881), foaled 1925, bred by H. Watson, High Offley Farm, Stafford ; s Sussex Goalkeeper (34365), d New Park Grey Queen (79879), s d Rickford Coming King (27709) ; with foal by Edingale Blend (40272).

CLASS 2.—*Shire Filly or Colt, foaled in 1930.* [5 entries.]

I. (£10.)—F. W. PARSONS & SONS, Speckington, Ilchester, bay filly, **Speckington Supreme** ; s Tarnacre King's Lad (37887), d Speckington Dorothy Queen (112968), s d Speckington Coming King (35211).

II. (£5.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, bay colt, **Pendley Friar Marcus** ; s Cippenham Friar (38110), d Fenny Misty Morn (118173), s d Marden Blend (36734).

III. (£3.)—WILLIAM JOHN CUMBER, The Chestnuts, Theale, Berks, brown colt, **Theale St. John**, bred by J. Hanson & Son, Great Horwood, Bucks. s Stapleton Clansman (40168), d Bluebell (122811), s d Monks Green Michael (38408).

R.—WILLIAM GEORGE DAVIS & SON, Land Farm, Rolstone, Hewish, near Bristol, brown filly, **Rolstone Princess**, bred by F. W. Brown & Son, Compton Martin ; s Throstle Ironclad (39609) (Vol. 46), d Hazel Betty (11444), s d Marden Peter (33356).

CLASS 3.—*Shire Filly, foaled in 1929.* [2 entries.]

I. (£10.)—F. W. PARSONS & SONS, Speckington, Ilchester, bay, **Speckington Pearl** (124190); s Speckington Footprint (40166), d Stapleton Rose Marie (121357), s d Speckington Banker 2nd (39592).

CLASS 4.—*Shire Filly, foaled in 1928.* [5 entries.]

I. (£10.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, brown, **Tysoe Gem** (123456), bred by T. E. Wells, Home Farm, Tysoe, Kington, Warwick; s Warton Reciprocity (37020), d Tysoe Gloaming (115652), s d Ratcliffe King Cole (36846).

II. (£5.)—WILLIAM JOHN CUMBER, The Chestnuts, Theale, Berks, bay, **Theale Abbess**, bred by H. W. T. Smith, Rectory Farm, Fenny Compton, Leamington; s Old Leys Record (28938), d Farnborough Friar Queen, s d Rievaulx Friar (36013).

III. (£3.)—THOS. H. GOLLEDGE, Wraxall, Shepton Mallet, bay, **Sturton Jolly** (123409), bred by J. B. Brown, Sturton-le-Steeple, Retford; s Goadby King (38819), d Sturton Alberta (120294), s d Pendley Footprint (37728).

R.—H. C. PATCH, Dial Farm, Barrow Gurney, **Barrow Empress** (122774); s Theale Emperor (39996), d Theale Glitter (120332), s d Cippenham Friar (38110).

SPECIAL LOCAL PRIZE.

For the best Animal exhibited in Classes 1 to 4 by a resident within 25 miles of the Guildhall, Bristol.

I. (£10.)—H. C. PATCH, **Barrow Empress**.

R.—W. G. DAVIS & SON, **Rolstone Princess**.

MEDAL.

GIVEN BY THE SHIRE HORSE SOCIETY.

A Silver Medal (or the sum of £1) for the best Shire Mare, Filly, or Filly Foal, registered or eligible for registration in the Stud Book under the conditions stated.

I.—Sir GOMER BERRY, Bart., **Tysoe Gem**.

R.—W. J. CUMBER, **Theale Abbess**.

The Shire Horse Society also gave the sum of £1 to the breeder of the winner provided he was a Member of the Shire Horse Society and the dam of the winner was a mare registered in the Stud Book.

CHAMPION PRIZE.

“THE CITY OF BATH CHALLENGE VASE.”

Presented by the Corporation of Bath (Cedric Chivers, Mayor, 1923), to be competed for annually and to be held by the winner for one year. For the Best Shire animal exhibited.

I.—Sir GOMER BERRY, Bart., **Tysoe Gem**.

R.—W. J. CUMBER, **Theale Abbess**.

SUFFOLK.

(Classes 5, 6 and 7 cancelled through insufficiency of entries).

PERCHERONS.

(£30 towards the Prizes in these Classes were contributed by the British Percheron Horse Society)

CLASS 8.—*Percheron Mare, in-foal, or with foal at foot.* [3 entries.]

I. (£10.)—JOHN PIERPONT MORGAN, Estate Office, Wall Hall, Watford, very light grey, **Baudruche** (B. 685), foaled 1923, bred by L. Guion, Landes, Bellous, Huisne, Orne, France; s Groisy (F. 130286), d Nattiere (F. 114659), s d Joyeux (F. 84874); with foal by Histon Drayman 4th (B. 340).

II. (£5.)—JOHN PIERPONT MORGAN, grey, **Diabliesse** (B. 852), foaled 1925, bred by M. Richard Faux, St. Jean de la Foret, Mortagne, France; s Quadue (F. 129371), d Ritoujours (F. 132834), s d Japon (F. 84819); with foal by Histon Drayman 4th (B. 340).

R.—Sir HENRY H. A. HOARE, Bart., Stourhead, Zeals S.O., Wilts, grey, **Stourhead Tirela**, foaled 1925; s Lagor (B. 1), d Tirelire (B. 434), s d Instar (F. 78857); with foal by Stourhead Lagor (B. 424).

CLASS 9.—*Percheron Filly or Colt, foaled in 1930.* [3 entries.]

I. (£10.)—Sir HENRY H. A. HOARE, Bart., Stourhead, Zeals S.O., Wilts, grey colt, **Stourhead Drayman 2nd**; s Histon Drayman 5th (B. 368), d Stourhead Torfrida (B. 756), s d Lagor (B. 1).

II. (£5.)—JOHN PIERPONT MORGAN, Estate Office, Wall Hall, Watford, black colt, white stripe down face and spot near hind foot, **Aldenham Sergeant** (B. 489); s Histon Drayman 4th (B. 340), d Serverie (B. 534), s d Importun (F. 80576).

CLASS 10.—*Percheron Filly, foaled in 1928 or 1929.* [3 entries.]

I. (£10.)—JOHN PIERPONT MORGAN, Estate Office, Wall Hall, Watford, grey, with lighter grey star, **Aldenham Lady Grace** (B. 935), foaled 1929; s Huntley Perseus (B. 209), d Histon Lady Grey (B. 721), s d Villabon (B. 276).

II. (£5.)—JOHN PIERPONT MORGAN, grey, star, **Radwinter Audrey** (B. 904), foaled 1929, bred by J. Francis Taylor, Godfrey's Farm, Radwinter, Essex; s Lagor (B. 1), d Eastern Xanthina (B. 572), s d Newport (B. 20).

R.—Lt.-Col. F. G. G. BAILEY, Lake House, Salisbury, grey, **Lake Tirelire**, foaled 1929, bred by Sir Henry Hoare, Bart., Stourhead; s Histon Drayman, d Stourhead Tirela.

CLASS 11.—*Percheron Gelding or Barren Mare (by a registered sire), foaled in or before 1927.* [3 entries.]

I. (£10.)—ROBERT CHRYSTAL IRVING, Shenley Lodge, Ridge Hill, near Barnet, Herts, grey gelding, **Shenley Fury**, foaled 1927, bred by G. Fenwick, North Luffenham Hall, Stamford; s Hobland Demon (B. 258 Percheron Stud Book), d Sarre (B. 326).

II. (£5.)—ROBERT CHRYSTAL IRVING, dark grey gelding, **Shenley Quanteleux**, foaled 1926, bred by —, Scutt, Yarton, near Oxford; s Quanteleux (B. 35 Percheron Stud Book).

ANY AGRICULTURAL.

CLASS 12.—*Working Cart Mare or Gelding, the bona-fide property of a Yeoman or Tenant Farmer residing within a radius of 25 miles from the Guildhall, Bristol.* [7 entries.]

I. (£10).—W. R. WITHERS, Lower Court, Long Ashton, Bristol, black shire gelding, three white points, **Long Ashton Captain**, foaled 1927; s Boro' Coming King 2nd (38038), d Colbeach Melody, s d Headley Waggoner (28367).

II. (£5).—H. C. PATCH, Dial Farm, Barrow Gurney, shire filly, **Barrow Empress**.

III (£3)—H. C. PATCH, shire gelding, **John**, foaled 1926.

R.—LIONEL STANLEY FOWLER, Clapton Lane, Portishead, bay shire mare, with white markings, foaled 1927, bred by S. Mitchell, Weston-in-Gordano.

H.C.—J. A. HURDITCH, Springfield, Portbury, Bristol, bay, **Prince**.

HUNTERS.

CLASS 13.—*Hunter Mare, in-foal, or with foal at foot.* [8 entries.]

I. (£10).—Sir HENRY H. A. HOARE, Bart., Stourhead, Zeals S.O., Wilts, chestnut, **Lady Dorchester** (6697 H.S.B.); s Barbed Fence; with foal by Loughton's Last, foaled April 5, 1931.

II. (£5).—Mrs. PHILIP FLEMING, Grendon Hall, Grendon Underwood, Bucks, bay, **Redwing 7th**, foaled 1918; s Red Hand, s d Red Sahib; with foal by Brigand.

III. (£3).—LITTLE LYNDRIDGE STUD (Mrs. Vinson-Thomas), Little Lyndridge, Okehampton, Devon, bay, **Martrine**, foaled 1923; s Marten, d Sister Barry; with foal by Pytchley, foaled March 5, 1931.

R.—WALTER J. FRYER, C.B.E., Holme Park, Sonning, Berks, bay, **Gaylarch**, foaled 1924; s Gay Lally, d Larch, s d Birk Gill; with foal by Cartoon.

CLASS 14.—*Hunter Colt or Filly Foal, produce of Mare in Class 13.* [6 entries.]

I. (£5).—Mrs. P. FLEMING, Grendon Hall, Grendon Underwood, Bucks.

II. (£3).—LITTLE LYNDRIDGE STUD (Mrs. Vinson-Thomas), Little Lyndridge, Okehampton, Devon.

III. (£1).—Sir H. H. A. HOARE, Bart., Stourhead, Zeals S.O., Wilts.

R.—H. S. ROBSON SCOTT, Hightown Hill, Ringwood, Hants.

CLASS 15.—*Hunter Filly, Colt or Gelding, foaled in 1930.* [15 entries.]

I. (£10).—ALFRED E. JAMES, The Dalkins, Caerwent, Chepstow, chestnut **Windyridge**; s Jilted, d Lady Leicester.

II. (£5).—JOHN EDWARD JONES, Treworgan, Ross, Herefordshire, bay colt, **China Cook**; s Irrawaddy, d Cardona, s d Cardonald.

III. (£3).—MRS. H. FRANK, Saddlewood, Wotton-under-Edge, chestnut filly, **Nightcap**; s Double Bed, d Mrs. Sippi, s d Mount William.

R.—J. KING BRAIN & SON, Little Weston Farm, Sparkford, Somerset, chestnut filly, **Easter Lily**; s Finchale, d Diana, s d Gay Lally.

H.C.—MISS WELLESLEY, Ford House, Churchinford, near Chard, Somerset, bay colt, **Follow Suit**, bred by H. Clarke, Stoke-under-Ham, Yeovil: s Sysonby d Gingerbread 2nd (7135).

C.—MRS. W. G. BUSK, Wraxall Manor, Dorchester, Dorset, roan colt, **Nabob**; s Austin Friars, d Nenagh.

CLASS 16.—*Hunter Filly, Colt or Gelding, foaled in 1929.* [12 entries.]

I. (£10).—MRS. PHILIP FLEMING, Grendon Hall, Grendon Underwood, Bucks, bay gelding, **Willie**; s Political, d Redwing 7th, s d Red Hand.

II. (£5).—G. R. MAUNDRELL, Calstone, Calne, Wilts, chestnut gelding, **Jack Point**, bred by E. Palmer, Spaxton, Bridgwater; s John Gay.

III. (£3).—J. E. JONES, Treworgan, Ross, Herefordshire, brown filly, **Cardona 2nd**; s Huntly Gowk, d Cardona, s d Cardonald.

R.—THE DOWAGER LADY PENBRYN, Wicken Park, Bletchley, Bucks, black gelding, **Horatio**; s The Pilot, d Nell, s d Chantuer.

H.C.—MRS. HOWARD MANDER, Trysull Manor, near Wolverhampton, chestnut gelding, **Dunkirk 2nd**, bred by W. B. Brown, Slingsby, Yorkshire; s Dunholm, d Proud Mary, s d Proudridge.

C.—SIR HENRY H. A. HOARE, Bart., Stourhead, Zeals, S.O., Wilts, chestnut gelding, **Wessex** (H.S.B. 1277); s Loughton's Last (H.S.B. 226, Vol. XII.), d Lady Dorchester (H.S.B. 6697), s d Barbed Fence.

CLASS 17.—*Hunter Filly or Gelding, foaled in 1928.* [9 entries.]

I. (£10).—MRS. HOWARD MANDER, Trysull Manor, near Wolverhampton, brown filly, **Rose Mary**, bred by W. B. Brown, Southolme, Slingsby, Yorkshire; s Dunholm, d Proud Mary, s d Proudridge.

II. (£5).—MISS WELLESLEY, Ford House, Churchinford, near Chard, Som., chestnut filly, **Juliet 4th** (7209), bred by A. Terry, Quarrndon House, Aylesbury, Bucks; s Kingsborough, d Stella 19th (7204), s d Sundawn.

III. (£3).—MRS. H. FRANK, Saddlewood, Wotton-under-Edge, Glos., bay gelding, **Cragscap**, bred by James Mackessy, Knocknanuss, Kantuck, Co. Cork; s Caricato, s d Turks Cap.

R.—JOHN EDWARD JONES, Treworgan, Ross, Herefordshire, bay gelding, **Victor**, bred by Walter Lofthouse, Bishopthorpe, Yorks; s Hector, d Vanity 6th, s d Long Tom.

H.C.—SIR HENRY H. A. HOARE, Bart., Stourhead, Zeals, S.O., Wilts, chestnut gelding, **Dorset** (H.S.B. 1278); s Loughton's Last (H.S.B. 226, Vol. XI.), d Lady Dorchester (H.S.B. 6697), s d Barbed Fence.

C.—MRS. W. G. BUSK, Wraxall Manor, Dorchester, bay gelding, **Wizam**; s Loxley, d Nenagh.

GIVEN BY THE HUNTERS' IMPROVEMENT AND NATIONAL LIGHT HORSE BREEDING SOCIETY.

Gold Medal or Bronze Medal and £5, for the best Hunter Brood Mare under the conditions stated.

I.—Sir H. H. A. HOARE, Bart., **Lady Dorchester.**

R.—Mrs. PHILIP FLEMING, **Redwing 7th.**

PRODUCE GROUP CLASS.

The Hunters' Improvement and National Light Horse Breeding Society offered Three Premiums of £1 to be awarded to the owners of a Group of Three Young Hunters (not exceeding 3 years old), by the same Thoroughbred or Registered Hunter sire and entered in Classes 15, 16 or 17, provided that not less than Two Groups competed, and that the animals in the selected group were tendered for registration in the Hunter Stud Book. If six or more groups competed, the offer was increased to Three Premiums of £2 each, for the best Group, and Three Premiums of £1 each for the second best Group, and similar Premiums were also offered by the Bath and West Society.

(NO COMPETITION).

ARABS AND PONIES.

ARAB.

Animals entered in Class 18 must have been registered or accepted for registration in the Arab Horse Stud Book.

(£25 towards the Prizes in this Class were contributed by the Arab Horse Society).

CLASS 18.—*Arab Colt, Filly or Gelding, foaled in 1928, 1929 or 1930. [9 entries.]*

I. (£15).—GEORGE H. RUXTON, Monksherborne, Basingstoke, chestnut colt, **Algol**, foaled 1928, bred by H.R.H. the Prince of Wales, K.G., York House, St. James' Palace; s Aldebaran, d Rangha, s d Berk.

II. (£12).—C. W. HOUGH, Hydes, Abridge, Essex, chestnut colt, **Barkis**, foaled 1929, bred by H.R.H. the Prince of Wales, K.G., Duchy of Cornwall Stud, Princetown, Devon; s Aldebaran, d Rangha, s d Berk.

III. (£8).—LADY YULE, Hanstead House, Bricket Wood, St. Albans, chestnut filly, **Nurschida**, foaled 1930; s Nuri Sherif, d Razina, s d Rasim.

IV. (£5).—The Hon. Mrs. R. E. L. VAUGHAN WILLIAMS, High Ashes Farm, Holmbury St. Mary, Dorking, chestnut stallion, **Azym**, foaled 1929; s Sher-i-Khurshid, d Alfaroose, s d Berk.

R.—T. C. ARMITAGE, Dene Court, Taunton, grey colt, **Majid**, foaled 1930; s Almulid, d Maasreh, s d Crosbie.

GIVEN BY THE ARAB HORSE SOCIETY.

Silver Medal for the best Colt in Class 18.

I.—G. H. RUXTON, **Algol.**

Silver Medal for the best Filly in Class 18.

I.—LADY YULE, **Nurschida.**

POLO AND RIDING PONY.

Animals entered in Classes 19 to 22 must have been entered in the National Pony Stud Book or registered in the Approved Mare Register.

CLASS 19.—*Polo and Riding Pony Mare, not exceeding 15 hands, in foal, or with foal at foot.* [5 entries.]

I. (£10.)—Capt. W. H. FRANCE-HAYHURST, Bostock Hall, Middlewich, Cheshire, chestnut, **Rosine** (N.P.S.B. 6026), foaled 1925; s Rosewood (1314), d Juliet 2nd (5032), s d Sandiway (121); with foal by Silverdale Loyalty (1448)

II. (£5.)—Capt. the Hon. C. K. GREENWAY, Stanbridge Earls, Romsey, Hants, bay, **Raheewe**, foaled 1923, bred in Ireland; s Raheene, s d Agadir; with foal by Malice.

III. (£3.)—Mrs. J. OSCAR MUNTZ, Foxhams, Horrabridge, S. Devon, bay **Early Market**, bred by H. Spry, Witherdon, Lew Down; s Yorkshire Hussar d Market Girl, s d Bold Marco; with foal by Love Song.

R.—Capt. W. H. FRANCE-HAYHURST, chestnut, **Coronet** (N.P.S.B. 4900), foaled 1920; s Little Corona (814), d Juliet 2nd (5032), s d Sandiway (121); with foal by Silverdale Loyalty (1448).

CLASS 20.—*Polo and Riding Pony Filly, Colt or Gelding, foaled in 1930.* [5 entries.]

I. (£10.)—The Misses TILLEY, Rudloe House, Box, Wilts, bay colt, **Gay Tab**, bred by the late Major A. E. Fitzgerald, Marsden Manor, Cirencester; s Tabarin, d Nesegay, s d Gav Lally.

II. (£5.)—Capt the Hon. C. K. GREENWAY, Stanbridge Earls, Romsey, Hants, brown colt, **Malaxer**; s Malice (G.S.B., Vol. 26, page 1335), d Jackdaw (A.M.R., page 149), s d Roebuck.

III. (£3.)—Miss B. G. CORY-WRIGHT, Norcott Hill, Berkhamsted, Herts, bay or brown filly, **Cassia 2nd**; s Gold Eagle (Y.S.R.), d Spice (A.M.R.).

R.—Mrs. J. OSCAR MUNTZ, Foxhams, Horrabridge, S. Devon, brown colt, **Great Fancy**; s Tabarin, d New Love (T.B.), s d Arthurs Pride.

CLASS 21.—*Polo and Riding Pony Filly, Colt or Gelding, foaled in 1929.* [9 entries.]

I. (£10.)—Misses CALMADY HAMLYN & DAWSON, Pearroc Vean, Buckfast, S. Devon, grey filly, **Patience**; s Lanchester (Vol. XXV., page 631), d Griselda 2nd (2508).

II. (£5.)—Mrs. F. J. HOLMES, Middleton Stoney, Bicester, roan filly, **Merry Maid 4th**; s Greenback, d Rambler 4th (Approved Mare Register, page 290).

III. (£3.)—LADY HUNLOKE, Cowbridge, Malmesbury, Wilts, bay colt, **Wingerworth Jade**; s Wild Tint (1207), d Syllabub (5737), s d Barbed Fence (G.S.B.).

R.—LORD DIGBY, Minterne, Dorchester, chestnut colt, **Golden Gate**; s Friaragate (1325), d Dolly 18th (A.M.R., page 266), s d Brilliant.

CLASS 22.—*Polo and Riding Pony Filly, Colt or Gelding, foaled in 1928. [5 entries.]*

I. (£10.)—Capt. the Hon. C. K. GREENWAY, Stanbridge Earls, Romsey, Hants, bay filly, **Malanet**; s Malice (G.S.B., Vol. 26, page 1335), d Janet 6th (A.M.R., page 195), s d Gay Lally (G.S.B., Vol. 22, page 306).

II. (£5.)—LORD DIGBY, Minterne, Dorchester, chestnut colt, **Firefly 3rd**; s Friarsgate (1325), d Precioso (A.M.R., page 270), s d Kendal Brown.

III. (£3.)—Sir IAN WALKER, Bart., Osmaston Manor, near Derby, brown gelding, **Carouse**; s Tabarin, d Dusk 2nd, s d Hanover Square.

R.—The COUNTESS OF MOUNT EDGCUMBE, Mount Edgcumbe, Plymouth, brown gelding, **Polestar**; s Pytchley, d Stella Mario, s d Suspiro.

H.C.—Lt.-Col. W. LLEWELLYN PALMER, Rushmore Park, near Salisbury, bay filly, **Dunbarton's Dream**; s Carneol (T.B.), d Dunbarton's Daughter (T.B., A.M.R., page 278).

GIVEN BY THE NATIONAL PONY SOCIETY.

Silver Medal for the best Brood Mare in Class 19.

I.—Capt. W. H. FRANCE-HAYHURST, **Rosline**.

Silver Medal for best Exhibit in Class 20, 21 or 22.

I.—Capt. the Hon. C. K. GREENWAY, **Malanet**.

R.—Misses CALMADY HAMLYN & DAWSON, **Patience**.

Bronze Medal for best Foal.

I.—Mrs. J. O. MUNTZ.

SHETLAND PONY.

CLASS 23.—*Shetland Pony Mare, not exceeding 10.2 hands, in-foal, or with foal at foot. [3 entries.]*

I. (£8.)—Mrs. B. COX, Marshwood Manor, Bridport, black, **Bohemian Maid of Marshwood**, foaled 1926; s Bohemian of Earlsall (1079), d Empire Maid (4055), s d Boadventure of Earlsall (641); with foal by Bravo of Earlsall (1115).

II. (£4.)—Mrs. B. COX, black, **Maid of Urr** (3865), foaled 1917, bred by F. N. M. Gourlay, Tyron, Dumfriesshire; s Drumlanrig (699), d Delia (2327), s d Thor (83); with foal by Bravo of Earlsall (1115).

CLASS 24.—*Shetland Pony Yeld Mare, not exceeding 10.2 hands. [6 entries.]*

I. (£8.)—LADY HUNLOKE, Cowbridge, Malmesbury, Wilts, skewbald, **Flapper**, foaled 1922; s Bright Boy of Earlsall (691), d Rosina (3534), s d Thoreau (392).

II. (£4.)—R. W. R. Mackenzie, Carpow, Newburgh, Fife, black, **Elderflower of Earlsall** (Vol. 36), foaled 1928; s Helmet of Earlsall (408), d Eliza of Earlsall (4295), s d Gluss Norseman (759).

III. (£2.)—Mrs. B. COX, Marshwood Manor, Bridport, Dorset, black, **Merry Dancer of Parkhill** (4391), foaled 1925, bred by Miss J. T. Irvine Fortescue, Parkhill, Dyce, Aberdeenshire; s Bright Star of Maryfield (1045), d Monachedin (3353), s d Rattler 2nd (280).

CLASS 25.—*Shetland Pony Stallion, not exceeding 10.2 hands, foaled in or before 1928. [7 entries.]*

I. (£8.)—R. W. R. MACKENZIE, Carpow, Newburgh, Fife, black, **Lord George** (1264), foaled 1926, bred by the late Wm. Matthewson, Dumfermline; s Max of Middlebank (875), d Grace of Woodlea (Vol. 30), s d Everlasting of Auchlochan (703).

II. (£4.)—LADY HUNLOKE, Cowbridge, Malmesbury, Wilts, black, **Bramble**, foaled 1928; s Dibblitz of Penniwells (1087), d Rosina (3534), s d Thoreau (392).

III. (£2.)—Mrs. B. COX, Marshwood Manor, Bridport, Dorset, grey, **Seldlitz of Marshwood** (S.P.S.B., Vol. 35, page 12), foaled 1927; s Bohemian of Earlsall (1079), d Verona of Maryfield (3405), s d Erling (448).

R.—Mrs. B. COX, black, **Venture of Marshwood** (1236), foaled 1925; s Bohemian of Earlsall (1079), d Verona of Maryfield (3405), s d Erling (448).

V.H.C.—F. R. FRY, Wigmore, East Down, Barnstaple, black, **Snapshot** (733), bred by Misses D. and E. Hope; s Helium (452), d Sylph of Hollenden (2458), s d Haldor (270), d Sybil (114).

CHAMPION PRIZE.

GIVEN THROUGH THE SHETLAND PONY SOCIETY.

A Silver Cup, value £10, for the best animal exhibited in the Shetland Classes entered or eligible for entry in the Shetland Pony Stud Book. The Cup to be won twice in succession or 3 times in all before becoming the absolute property of the winner.

I.—Mrs. B. COX, **Maid of Urr.**

R.—R. W. R. MACKENZIE, **Lord George.**

WELSH MOUNTAIN.

CLASS 26.—*Welsh Mountain Pony Mare, not exceeding 12 hands, in foal or with foal at foot. [2 entries.]*

I. (£8.)—The Misses MAY & SUMMERS, Manor House, Rodney Stoke, Cheddar, Somerset, dapple grey, **Clumber Miss Mary** (4730), foaled 1917, bred by the Duchess of Newcastle, Clumber Park, Worksop; s Hardwick Conqueror (668), d Clumber Janet 3rd (4188), s d Hardwick Sensation (1045); in-foal.

II. (£4.)—The Misses MAY & SUMMERS, grey, **Lydbury Fire-Fly** (W.S.B. 8752), foaled 1923, bred by Thos. Howells, Asterton, Lydbury North, Salop; s Forest Jehu (948), d White House Fire-Fly (2992), s d Stretton Greyling (243); with foal.

CLASS 27.—Welsh Mountain Pony Stallion, not exceeding 12 hands.
[3 entries.]

I. (£8.)—TOM JONES EVANS, Dinchope, Craven Arms, grey, **Grove Sprightly**, foaled 1928, bred by Mrs. H. D. Greene, Grove, Craven Arms ; s Ch. Shooting Star, d Grove Sprite 2nd, s d Grove Ballistite.

II. (£4.)—HAMILTON W. CRAWFORD, Fairwood Lodge, Killay, Glam., grey, **Grove Will o' the Wisp** (W.S.B. 1260), foaled 1923, bred by Mrs. H. D. Greene, Grove, Craven Arms, Salop ; s Ch. Shooting Star (73), d Grove Twilight, s d Grove Ballistite (200).

III. (£2.)—The Misses MAY & SUMMERS, Manor House, Rodney Stoke, Cheddar, Somerset, grey, **Lydbury Rocket**, foaled 1927 ; s Grove Elfin (729), d Llewyn Venus (8309), s d Kilhendre Celtic Silverlight (953).

EXMOOR.

(£8 towards the Prizes in these Classes were contributed by the Exmoor Pony Society).

CLASS 28.—Exmoor Pony Mare, 2 years old and over on May 20, not exceeding 12.2 hands, with or without foal at foot. [10 entries.]

I. (£8.)—S. J. WESTCOTT, Zeal, Hawkridge, Dulverton, bay, **1 No. 11** (4886), foaled 1922.

II. (£4.)—The Right Hon. Sir F. D. ACLAND, Bart., Killerton, Exeter, Devon, bay, **Anchor No. 4** (5673), foaled 1921.

III. (£2.)—WILLIAM CROCKFORD, Hawkwell Farm, Wheddon Cross, Taunton, bay, **12 No. 6** (5679), foaled 1925 ; s 12 No. 1 (1235), d 12 No. 3 (4817).

R. TOM PRING, Great Champson, Molland Botreaux, Barnstaple, brown, **14 No. 1** (4842), foaled 1919, bred by the late Wm. Pring, Withycombe, Winsford ; s Old Ashway (unregistered), d 47 No. 1 (4847).

V.H.C.—WILLIAM CROCKFORD, brown, **12 No. 5** (5678), foaled 1925 ; s 12 No. 1 (1235), d 12 No. 2 (4816).—S. J. WESTCOTT, brown, **1 No. 13** (5706), foaled 1925 ; s 1 No. 2 (1253), d 1 No. 8 (4883).

C.—TOM PRING, brown, **14 No. 7** (6160), foaled 1929 ; s 1 No. 1 (1747), d 14 No. 4 (4845), s d 48 No. 1.

CLASS 29.—Exmoor Pony Stallion, 2 years old and over on May 20, not exceeding 12.3 hands. [5 entries.]

I. (£8.)—C. M. WESTCOTT, Draydon Farm, Dulverton, brown, **28 No. 2** (1544), foaled 1926.

II. (£4.)—W. G. THORNE & SON, Higher House, Twitchen, South Molton, Devon, bay, **44 No. 1** (1249), foaled 1923.

III. (£2.)—HENRY WILLIAMS, Great Ash, Winsford, Taunton, brown, **48 No. 2** (1555), foaled 1925 ; s 48 No. 1 (1258).

R.—The Right Hon. Sir F. D. ACLAND, Bart., Killerton, Exeter, Devon, bay, **2 No. 2** (1543), foaled 1927, bred by F. G. Heal, Exford, Taunton ; s 1 No. 5 (1547), d 2 No. 1 (4826).

V.H.C.—WILLIAM CROCKFORD, Hawkwell Farm, Wheddon Cross, Taunton, bay, **12 No. 8** (1739), foaled 1928 ; s 12 No. 2 (1236), d 12 No. 2 (4816).

RIDING CLASSES.**HUNTER.**

CLASS 30.—*Hunter Mare or Gelding, foaled before 1928, that had not won a prize of £10 or over under saddle at any Show held previous to April 1, 1931, to carry under 14 stone.* [21 entries.]

I. (£10.)—C. LAZENBY, Hyde Mill, Stow-on-the-Wold, chestnut gelding, **Quarter Day**; s Limosin, d Daisy 1st, s d Merry Matchmaker.

II. (£5.)—Capt. C. R. SHIRREFF, Fairlawn, Weston, Bath, bay gelding, **Charles 1st**, foaled 1923; s Druce.

III. (£3.)—Capt. ARTHUR L. PALMER, Bower Hinton, Martock, Somerset.

R.—Sir HENRY H. A. HOARE, Bart., Stourhead, Zeals S.O., Wilts, bay gelding, **Tidal** (H.S.B. 1040), foaled 1927; s Tidal Wave, d Lady Dorchester (H.S.B. 6697), s d Barbed Fence.

H.C.—ARTHUR BRAKE, Higher Farm, Limington, Yeovil, chestnut gelding, **The Orphan**, foaled 1927, bred by —. Comnas, Fairfield, Kilmack, Tipperary; s St. Dunstan, d by Walmsgale.

CLASS 31.—*Hunter Mare or Gelding, foaled before 1928, that had not won a prize of £10 or over under saddle at any Show held previous to April 1, 1931, to carry 14 stone and over.* [7 entries.]

I. (£10.)—ALFRED JAMES, Totterdown, Bristol, gelding, **Cahirmee**, foaled 1925; s Desborough.

II. (£5.)—ALFRED JAMES, gelding, **Ferryman**, foaled 1926; s Kilnacklin.

III. (£3.)—ARTHUR BRAKE, Higher Farm, Limington, Yeovil, brown gelding, **Madewell**, foaled 1927, bred by Pat White, Beckville, Bridgetown; s Marshal Ney, d by Innellan.

CLASS 32.—*Hunter Mare or Gelding, foaled in 1927.* [13 entries.]

I. (£10.)—C. LAZENBY, Hyde Mill, Stow-on-the-Wold, chestnut gelding, **Quarter Day**; s Limosin, d Daisy 1st, s d Merry Matchmaker.

II. (£5.)—Sir HENRY H. A. HOARE, Bart., Stourhead, Zeals S.O., Wilts, bay gelding, **Tidal** (H.S.B. 1040), foaled 1927; s Tidal Wave, d Lady Dorchester (H.S.B. 6697), s d Barbed Fence.

III. (£3.)—The COUNTESS OF MOUNT EDGECUMBE, Mount Edgumbe, Plymouth, chestnut mare, **Clovelly**, bred by —. Hammond, Beaworthy, Devonshire; s Jingling Geordie, s d Longboat.

R.—ARTHUR BRAKE, Higher Farm, Limington, Yeovil, chestnut gelding, **The Orphan**, foaled 1927, bred by —. Comnas, Fairfield, Kilmack, Tipperary; s St. Dunstan, d by Walmsgale.

H.C.—Sir STANLEY TUBBS, Bart., M.F.H., Ellerncroft, Wotton-under-Edge, Glos., chestnut gelding, **Sugar**, bred by G. H. Beauchamp, Welton, Midsomer Norton; s Clarendon.

C.—ALFRED JAMES, Totterdown, Bristol, gelding, **Ennis**; s Rory O' More.

CLASS 33.—*Hunter Mare or Gelding, foaled before 1928 and not more than 8 years old, to carry under 14 stone.* [22 entries.]

I. (£20.)—Mrs. BASIL YOUNG, Wodards Close, Fritwell, near Bicester, Oxon., chestnut gelding, **Golden Arrow 2nd**, foaled 1924.

II. (£10.)—Mrs. J. E. JONES, Treworgan, Ross, chestnut gelding, **Astonishment**, foaled 1925, bred by W. Jones, Trwstllewelyn, Montgomery; s Great Surprise, d Navete, s d Le Blizon.

III. (£3.)—Col. SPENCE-COLBY, C.M.G., D.S.O., M.F.H., Donnington Hall, Ledbury, bay gelding, **Saint**, foaled 1925; s Time Honoured.

R.—C. LAZENBY, Hyde Mill, Stow-on-the-Wold, chestnut gelding, **Quarter Day**; s Limosin, d Daisy 1st, s d Merry Matchmaker.

H.C.—Mrs. C. B. YOUNG, Huish, Basingstoke, Hants, brown mare, **Gilby**, foaled 1926, bred by Glendower Jones, Delbury, Craven Arms, Salop; s Galroy (G.S.B.), d Betty 4th (H.S.B.), s d Red Sahib (75).

C.—Capt. ARTHUR L. PALMER, Bower Hinton, Martock, Somerset.

CLASS 34.—*Hunter Mare or Gelding, foaled before 1928 and not more than 8 years old, to carry 14 stone or over.* [9 entries.]

I. (£20.)—Lady HELEN MCCALMONT, Mount Juliet, Thomastown, Kilkenny, Ireland, chestnut gelding, **Handley Cross**, foaled 1925; s Marshall Ney.

II. (£10.)—Mrs. E. M. VAUGHAN, Blackladies, Brewood, Stafford, chestnut gelding, **Hecland**, foaled 1926, bred by H. Holby, Driffield; s Hector.

III. (£3.)—ALFRED JAMES, Totterdown, Bristol, gelding, **Cahirmee**, foaled 1925; s Desborough.

R.—ALFRED JAMES, gelding, **Ferryman**, foaled 1926; s Kilmacklin.

GIVEN BY THE HUNTERS' IMPROVEMENT AND NATIONAL LIGHT HORSE BREEDING SOCIETY.

Silver Medal, or the sum of £1, for the best Hunter Mare or Gelding of any age, exhibited in the Saddle Classes (the property of a Member of the Hunters' Improvement and National Light Horse Breeding Society) under the conditions stated.

I.—Mrs. E. M. VAUGHAN, **Hecland**.

R.—C. LAZENBY, **Quarter Day**.

HACK AND RIDING PONY.

CLASS 35.—(Novice Class). *Hack Mare or Gelding, any height, that has not won a prize of over £5 in value as a Hack at any Show held previous to April 1, 1931, ridden on the 2nd day of the Show.* [23 entries.]

I. (£10.)—J. K. STEVENSON, Welland, Malvern, bay gelding, **Wonder Bar**.

II. (£5.)—Mrs. P. FLEMING, Grendon Underwood, Bucks, black gelding, **Moonlight**.

III. (£2.)—The DOWAGER LADY PENRHYN, Bletchley, chestnut gelding, **Manowry**.

R.—MRS. R. M. STEWART RICHARDSON, Idoover House, Dauntsey, Chippenham, bay mare, **Minnewaska**.

H.C.—LADY HUNLOKE, Cowbridge, Malmesbury, bay mare, **Rosewater**.—**R. J. HANDLEY**, Moorlands Blacke, Nelson, Lancs., bay gelding, **Stonedge Star**.

C.—MISS BUSFELD, Chipping Sodbury, Glos., chestnut gelding, **Ben Hur**.

CLASS 36.—*Hack Mare or Gelding, any height, ridden on the 2nd day of the Show.* [16 entries.]

I. (£10.)—J. V. RANK, Godstone, bay gelding, **Lord Slane**.

II. (£5.)—Major STEWART RICHARDSON, Dauntsey, chestnut gelding, **Battle Royal**.

III. (£2.)—J. K. STEVENSON, Malvern, bay mare, **Mignonette**.

R.—J. K. STEVENSON, bay gelding, **Wonder Bar**.

H.C.—The DOWAGER LADY PENRHYN, Bletchley, chestnut gelding, **Manowry**.

C.—MISS O. E. PRATT, Broome Manor Lane, Swindon, mare, **Tella late Nell**.—MRS. W. CAUDWELL, Lyndhurst Road, Hampstead, bay mare, **Ballerina**.

CLASS 37.—*Hack Mare or Gelding, 15 hands and over, ridden Side Saddle and judged by a lady on the 2nd day of the Show.* [17 entries.]

I. (£10.)—J. V. RANK, Godstone, bay gelding, **Lord Slane**.

II. (£5.)—J. K. STEVENSON, Malvern, bay mare, **Mignonette**.

III. (£2.)—Major STEWART RICHARDSON, Dauntsey, chestnut gelding **Battle Royal**.

R.—J. K. STEVENSON, bay gelding, **Wonder Bar**.

H.C.—MISS O. E. PRATT, Broome Manor Lane, Swindon, mare, **Tella late Nell**.—MRS. W. CAUDWELL, Hampstead, bay mare, **Ballerina**.

C.—J. V. RANK, chestnut gelding, **Indian Prince**.

CLASS 38.—*Hack Mare or Gelding, under 15 hands, ridden on the 3rd day of the Show.* [17 entries.]

I. (£10.)—MRS. P. FLEMING, Grendon Hall, Grendon Underwood, black gelding, **Moonlight**.

II. (£5.)—MRS. R. M. STEWART RICHARDSON, Dauntsey, Chippenham, bay mare, **Minnewaska**.

III. (£2.)—MRS. SAVILE PETCH, Milborne Port, chestnut mare, **Landrail**.

R.—LADY M. LIDDELL GRAINGER, Ayton Castle, Berwickshire, brown mare, **Mida**.

V.H.C.—H. S. BETHELL, Elminton, Compton Greenfield, dark brown.

CLASS 39.—*Weight-carrying Cob, not exceeding 15.1 hands, carrying not less than 14 stone, ridden on the 3rd day of the Show.* [6 entries.]

I. (£10.)—ARTHUR BRAKE, Higher Farm, Limington, Yeovil, bay gelding, **Hope**.

II. (£5.)—Miss K. CAUDWELL, Lyndhurst Road, Hampstead, bay gelding, **Button**.

III. (£2.)—Major R. M. STEWART RICHARDSON, Idover, Dauntsey, chestnut gelding, **Sandy**.

R.—FRANK A. BATE, Launceston, Cornwall, grey gelding, **Solid Silver 2nd**.

V.H.C.—Miss J. L. CAVE PENNEY, Poundsgate, Devon, and M. R. PHILIPSON, Widecombe-in-the-Moor, Devon, black mare, **Carnival**.

CLASS 40.—*Polo Pony, not over 15 hands, 4 years old and over, ridden on the 3rd day of the Show.* [6 entries.]

I. (£10.)—W. JACKMAN, The Paddocks, Abingdon, bay mare, **Bonnie Heverswood**.

II. (£5.)—Miss E. LAMBART, Marsh Court, Sherborne, bay mare, **Betsy Anne**.

III. (£2.)—E. A. GREENSLADE, The Laurels, Westbury-on-Trym, chestnut mare, **Alice**.

CHILDREN'S PONY.

Small Silver Cups were presented to the best Boy and Girl Rider in Classes 41 & 42.

CLASS 41.—*Children's Pony, not over 14 hands, suitable for and ridden by a child over 10 and not over 15 years of age last birthday, on the 3rd day of the Show.* [19 entries.]

I. (£5.)—LADY M. LIDDELL GRAINGER, Ayton Castle, Berwickshire, grey mare, **Quicksilver**.

II. (£4.)—Miss O. RICKS, Addlestone, **Cators Beam**.

III. (£2.) and Cup for best Girl Rider.—Miss JILL HERMON-ERRIMAN, The White Cottage, Folkstone, bay, **High Tide**.

IV. (£1.)—Miss A. CAPEL, Lyegrove, Badminton, chestnut gelding, **Cupid**.

R.—ARTHUR L. PALMER, Bower Hinton, Martock, black gelding, **Billy**.

C. and Cup for best Boy Rider.—T. H. BAKER, Limbrick House, Chipping Sodbury, bay gelding, **Paddy**.—Capt. GUNSTON, Wickwar, Glos., chestnut.—V. PARRY, Cheltenham Riding School (Ltd.), **Brown Mouse**.

SPECIAL LOCAL PRIZES.

For the best Exhibits in Class 41, the property of a resident within 25 miles of the Guildhall, Bristol.

I. (£4.)—Miss A. CAPEL, **Cupid.**

II. (£3.)—T. H. BAKER, **Paddy.**

III. (£1.)—Capt. GUNSTON.

R.—The Misses TILLEY, Rudloe House, Box, Wilts, bay gelding, **Freckles.**

CLASS 42.—*Pony, not over 13 hands, suitable for and ridden by a child not over 10 years of age last birthday, on the 4th day of the Show.* [9 entries.]

I. (£5) and Cup for best Girl Rider.—The Misses TILLEY, Rudloe House, Box, Wilts, **Sonnet.**

II. (£4) and Cup for best Boy Rider.—J. DANIEL, Stone, Glos., **Misty.**

III. (£2.)—Miss P. BURFORD, Yate, Glos., **Model.**

IV. (£1.)—LITTLE LYNDRIDGE STUD, Okehampton, **Lyndridge Brownie.**

R.—E. HOUSE, Weston-super-Mare, **Cupid.**

H.C.—Miss G. GREENWAY, Yate, Glos., **Grey Dawn.**

C.—G. CURTIS, 19, Royal Crescent, Bath, **Babs.**

OFFERED BY THE NATIONAL HORSE ASSOCIATION OF GREAT BRITAIN,
12, Hanover Square, London.

Silver Medal for the best Child's Pony in Classes 41 and 42, ridden by a Child under 14 years of age last birthday. No Pony or Rider to take more than one Medal in the same year.

I.—The Misses TILLEY, **Sonnet.**

R.—J. DANIEL, **Misty.**

DRIVING CLASSES.

TRADESMEN'S CLASSES.

CLASS 43.—*Heavy Cart "Turnout" (Horse, Vehicle and Harness), used solely for business purposes (Farmers excepted), the property of a tradesman residing within a radius of 4 miles from the Guildhall, Bristol, the Horse to have been in regular work three months previous to the date of the Show and in constant work up to the day of competition. Exhibited in the ring on the 1st day of the Show, in the trade cart and harness in which it had been worked for the same period.* [2 entries.]

I. (£12) and **10s.** to Driver.—LONDON, MIDLAND & SCOTTISH RAILWAY CO., Bristol, black gelding, **Harold.**

II. (£8) and **5s.** to Driver.—LONDON, MIDLAND & SCOTTISH RAILWAY CO., bay gelding, **Prince.**

CLASS 44.—*Light "Turnout" (Horse, Vehicle and Harness), used solely for business purposes (Farmers excepted), the property of a tradesman residing within a radius of 4 miles from the Guildhall, Bristol, the Horse to have been in regular work three months previous to the date of the Show and in constant work up to the day of competition. Exhibited in the ring on the 1st day of the Show, in the trade cart and harness in which it had been worked for the same period. [9 entries.]*

I. (£12.)—H. WILCOX, St. Agnes, bay mare, **Pansy**.

II. (£6.)—A. WESTLAKE, Bristol.

III. (£2.)—H. CREASE, Keynsham, blue roan, **Klt**.

R. —M. FUSSELL, Kingswood, brown, **Bobbie**.

V.H.C.—R. J. F. MATTHEWS, Bristol, bay, **Braishfield Reseda**.

H.C.—A. H. SHORT, Kingswood, light chestnut gelding, **Sonny Boy**.

C.—G. C. ANDREWS, Newtown, chestnut mare, **Peggy**.—J. J. ANGLE, Bristol, black mare, **Dinan**.—W. J. HABERFIELD, Bristol, chestnut, **Billy**.

CLASS 45.—(*Novice Class*). *Stallion, Mare or Gelding, not over 14 hands, that had not previously won a prize of over £5 in value in Single Harness at any Show held previous to January 1, 1931. Driven on the 2nd day of the Show. [7 entries.]*

I. (£10.) —Mrs. A. C. KING, Braishfield Manor, Romsey, bay gelding, **Powder Blue**.

II. (£5.)— —. GRIFFITHS, Church Street, Basingstoke, **Basing Fingirl**.

III. (£3.)—F. C. MINOPRIO, Avening Court, Avening, bay gelding, **Joseph of Haulfryn**.

IV. (£2.)—P. HOFFMAN, 4, Cardigan Mansions, Richmond Hill. S.W., brown mare, **Orford Caprice**.

R. —H. G. WILLIAMS, 47, Coronation Road, Southville, bay gelding, **Cheerio**.

CLASS 46.—(*Novice Class*). *Stallion, Mare or Gelding, over 14 and not over 15 hands, that had not previously won a prize of over £5 in value in Single Harness at any Show held previous to January 1, 1931, driven on the 2nd day of the Show. [1 entry.]*

I. (£10.)—P. HOFFMAN, 4, Cardigan Mansions, Richmond, S.W., bay gelding, **Orford Pioneer**.

CLASS 47.—(*Novice Class*). *Stallion, Mare or Gelding over 15 hands that had not previously won a prize over £5 in value in Single Harness at any Show held previous to January 1, 1931, driven on the 2nd day of the Show. [2 entries.]*

I. (£10.)—F. C. MINOPRIO, Avening, bay gelding, **Pollux**.

II. (£5.)—H. E. NICHOLLS, Goose Green Farm, Yate, bay gelding, **Aeroplane**.

CLASS 48.—*Pair of Mares or Geldings, any height, driven in Double Harness on the 3rd day of the Show.* [4 entries.]

I. (£15.)—PAUL HOFFMANN, 4, Cardigan Mansions, Richmond, S.W., chestnut mares.

II. (£7.)—MRS. A. C. KING, Braishfield Manor, Romsey, brown geldings, **The Raider** and **The Ringer**.

III. (£3.)—H. J. COLEBROOK, Fulmer, Bucks.

IV. (£2.)—FRANK C. MINOPRIO, Avening Court, Avening, Glos., bay geldings, **Pollux** and **Castor**.

CLASS 49.—*Tandems, Mares or Geldings, any height, driven on the 3rd day of the Show.* [5 entries.]

I. (£15.)—MRS. A. C. KING, Braishfield Manor, Romsey, brown geldings, **The Ringer** and **The Raider**.

II. (£7.)—P. HOFFMANN, 4, Cardigan Mansions, Richmond, chestnut mares.

III. (£3.)—F. C. MINOPRIO, Avening, Glos., bay geldings, **Pollux** and **Castor**.

IV. (£2.)—H. J. COLEBROOK, Fulmer, Bucks.

CLASS 50.—*Mare or Gelding, not exceeding 13.2 hands, the owner residing within a radius of 25 miles from the Guildhall, Bristol, driven on the 3rd day of the Show.* [5 entries.]

I. (£12.)—F. C. MINOPRIO, Avening Court, Avening, Glos., bay gelding, **Mickey Mouse**.

II. (£5.)—H. G. WILLIAMS, 47, Coronation Road, Southville, Bristol, bay gelding, **Cheerio**.

III. (£3.)—H. E. NICHOLLS, Goose Green Farm, Yate, bay gelding, **Merry Boy**.

R.—H. CREASE, Stud Farm, Keynsham, blue roan filly, **Western Suntip**.

V.H.C.—M. FUSSELL, 37, Two Mile Hill, Kingswood, **Bobble**.

CLASS 51.—*Mare or Gelding, exceeding 13.2 hands, the owner residing within a radius of 25 miles from the Guildhall, Bristol, driven on the 3rd day of the Show.* [4 entries.]

I. (£12.)—F. C. MINOPRIO, Avening, Glos., bay gelding, **Castor**.

II. (£5.)—STEEL BROS., The Bakery, Cam, Glos., chestnut gelding, **Donnybrook Admiral**.

III. (£3.)—MRS. H. G. WILLIAMS, 47, Coronation Road, Southville, Bristol, bay gelding, **Blighty**.

R.—H. E. NICHOLLS, Yate, bay gelding, **Aeroplane**.

CLASS 52.—*Stallion, Mare or Gelding, not exceeding 14 hands, driven on the 4th day of the Show.* [7 entries.]

I. (£15.)—T. EVANS, Highfield, Sketty, **Habrough Fairway**.

II. (£7.)—P. HOFFMANN, 4, Cardigan Mansions, Richmond Hill, S.W., brown mare, **Orford Caprice**.

III. (£3.)—Mrs. A. C. KING, Braishfield Manor, Romsey, bay gelding, **Powder Blue**.

IV. (£2.)—F. C. MINOPRIO, Avening, bay gelding, **Mickey Mouse**.

R.—H. G. WILLIAMS, 47, Coronation Road, Southville, bay gelding, **Cheerio**.

CLASS 53.—*Stallion, Mare or Gelding, over 14 and not exceeding 15 hands, driven on the 4th day of the Show.* [6 entries.]

I. (£15.)—Mrs. A. C. KING, Braishfield Manor, Romsey, **The Raider**.

II. (£7.)—Mrs. A. C. KING, **The Ringer**.

III. (£3.)—Mrs. H. G. WILLIAMS, 47, Coronation Road, Southville, **Blighty**.

CLASS 54.—*Stallion, Mare or Gelding, over 15 hands, driven on the 4th day of the Show.* [9 entries.]

I. (£15.)—R. BLACK, Osbaldwick, York, **Field Adjutant**.

II. (£7.)—F. C. MINOPRIO, Avening Court, Avening, Glos., **Pollux**.

III. (£3.)—P. HOFFMANN, 4, Cardigan Mansions, Richmond, S.W., dark chestnut mare, **Orford Eclipse**.

IV. (£2.)—STEEL BROS., Cam, Glos., **Donnybrook Admiral**.

R.—R. GRIFFIN, Basingstoke, **Basing Mald**.

V.H.C.—H. E. NICHOLLS, Goose Green Farm, Yate, **Aeroplane**.

GIVEN BY THE HACKNEY HORSE SOCIETY
under conditions stated.

A Silver Medal for the best Hackney Mare or Horse exhibited in Single Harness in Classes 45 to 47.

I.—F. C. MINOPRIO, **Pollux**.

R.—STEEL BROS., **Donnybrook Admiral**.

Silver Medal ditto in Classes 50 to 54.

I.—STEEL BROS., **Donnybrook Admiral**.

R.—H. G. WILLIAMS, **Cheerio**.

JUMPING.

(Under Show Jumping Association Rules).

CLASS 55.—(*Novice Class*). *Mare or Gelding, any height, not having previously won a prize of £5 or over for Jumping at any Show up to the time of Judging, jumping over the course in the best form on the 1st day of the Show.* [13 entries.]

I. (£10).—F. W. FOSTER, Etwell, Derby.

II. (£7).—T. & H. MONKS, Aughton, near Ormskirk, **Silver Nymph**.

Equal III. (£2 10s.).—R. H. EATON, Pershore, **Nightlight**, and Mrs. NANCY WATTS, Iron Acton, brown mare, **Brownhylda**.

CLASS 56.—*Mare or Gelding, any height, jumping highest on the 1st day of the Show.* [12 entries.]

(£1 was added to the Prizes offered for every 6 inches over 5 feet cleared by the winning animals.)

I. (£15) and additional £1.—T. MAKIN, Newton Farm, near Castleford, bay gelding, **Silver Mint**.

II. (£7) and additional £1.—F. V. GRANGE, Nantwich, grey gelding, **Desiree**.

III. (£5) and additional £1.—T. GLENCROSS, The Chestnuts, Seagry, Chippenham, **Tacker**.

R.—D. W. DOBSON, Nantwich, bay gelding, **Molecatcher**.

CLASS 57.—*Mare or Gelding, any height, the owner residing within a radius of 25 miles of the Guildhall, Bristol, jumping over the course in the best form on the 1st day of the Show.* [11 entries.]

I. (£12).—Major J. O. CAMPBELL, D.S.O., M.C., R.A., Bristol, brown mare, **Sorceress**.

II. (£5).—T. GLENCROSS, The Chestnuts, Seagry, Chippenham, **Tacker**.

III. (£3).—Miss R. GIFFORD, Chippenham, bay gelding, **Silly Billy**.

R.—Miss R. GIFFORD, brown gelding, **Spanker**.

CLASS 58.—*Mare or Gelding, over 15 hands, jumping over the course in the best form on the 2nd day of the Show.* [30 entries.]

Equal I. (£11).—T. MAKIN, Newton Farm, near Castleford, bay gelding, **Silver Mint**, and F. W. FOSTER, Etwell, Derby, **Skipton**.

Equal III. (£3 10s.).—J. TAYLOR, Moss Hall, Stretton, near Warrington, brown gelding, **Tiny**, and LADY WRIGHT, Edgbaston Riding School, brown gelding, **Tanapex**.

CLASS 59.—*Mare or Gelding, 15 hands and under, jumping over the course in the best form, on the 2nd day of the Show.* [16 entries.]

I. (£15.)—J. TAYLOR, Moss Hall, Stretton, near Warrington, chestnut mare, **Nettles**.

II. (£7.)—T. GLENCROSS, The Chestnuts, Seagry, Chippenham, **Tacker**.

III. (£5.)—A. BRAKE, Limington, bay gelding, **Hope**.

IV. (£2.)—Major DUDGEON, Applesham, Andover, **Goblet**.

CLASS 60.—*Mare or Gelding, any height, the owner residing within a radius of 25 miles from the Guildhall, Bristol, jumping over the course in the best form on the 2nd day of the Show.* [14 entries.]

I. (£12.)—Mrs. N. WATTS, Mudge Down, Iron Acton, brown mare, **Brownhylda**.

Equal II. (£2 13s. 4d.)—B. JOHNSON FERGUSON, Luckington Court, Chippenham, brown gelding, **Rajah**, B. JOHNSON FERGUSON, chestnut gelding, **Peter**, and T. GLENCROSS, The Chestnuts, Seagry, Chippenham, **Peter Pan**.

CLASS 61.—*Mare or Gelding, any height, jumping over the course in the best form on the 3rd day of the Show.* [43 entries.]

Equal I. (£7 5s.)—P. L. RUSSELL ALLEN, Davenham Hall, Northwich, **Falkner**, T. MAKIN, Newton Farm, near Castleford, **Silver Mint**, T. GLENCROSS, The Chestnuts, Seagry, Chippenham, **Tacker**, and F. W. FOSTER, Etwell, Derby, **Skipton**.

CLASS 62.—*Mare or Gelding, any height, jumping highest on the 3rd day of the Show.* [9 entries.]

(£1 was added to the Prizes for every 6 inches over 5 feet cleared by the winning animals.)

I. (£15) and additional £1.—T. MAKIN, Newton Farm, Castleford, Yorks, bay gelding, **Silver Mint**.

II. (£7.)—T. GLENCROSS, The Chestnuts, Seagry, Chippenham, **Mascot**.

III. (£5.)—LADY WRIGHT, Edgbaston Riding School, **Toby**.

CLASS 63.—*Children's Jumping Class. Mare or Gelding, not exceeding 14 hands, ridden by a child not over 15 years of age last birthday, jumping over the course in the best form on the 3rd day of the Show.* [14 entries.]

I. (£5.)—P. CHAPLIN, Church Farm, Worle, grey gelding, **Paddy**.

Equal II. (£3.)—T. B. A. LAVER, Oakleaze, Berkeley, bay mare, **Titch**, and V. PARRY, Cheltenham, **Tit Bits**.

IV. (£1.)—Miss JILL HERMON-ERRIMAN, The White Cottage, Folkestone, **Patches**.

SPECIAL LOCAL PRIZES.

For the best Exhibits in Class 63, the property of a resident within 25 miles of the Guildhall, Bristol.

I. (£4.)—P. CHAPLIN, **Paddy**.

II. (£3.)—T. B. A. LAVER, **Titch**.

III. (£1.)—Mrs. S. GUNN, **Puffin**.

CLASS 64.—*Mare or Gelding, over 15 hands, jumping over the course in the best form on the 4th day of the Show.* [30 entries.]

Equal I. (£9.)—J. TAYLOR, Moss Hall, Stretton, near Warrington, **Tiny**, T. H. MONKS, Aughton, **Silver Night**, F. V. GRANGE, Alvaston, Nantwich, grey gelding, **Desire**.

Equal IV. (£1.)—T. H. MONKS, **Planet**, E. G. DORSE, Trull, Taunton, **Nomination**, E. G. DORSE, **Mutol**.

CLASS 65.—*Mare or Gelding, 15 hands and under, jumping over the course in the best form on the 4th day of the Show.* [15 entries.]

I. (£15.)—LADY WRIGHT, Edgbaston Riding School, **Shanghai**.

II. (£7.)—F. C. MINOPRIO, Avening Court, Avening, Glos.

Equal III. (£3 10s.)—P. L. RUSSELL ALLEN, Northwich, **Tony**, and H. T. JONES, Staunton, **Master Jack**.

CHAMPION CLASS.

CLASS 66.—*Mare or Gelding, any height, having won a Prize in Classes 55 to 65, jumping the course in the best form on the 4th day of the Show.* [17 entries.]

I. (£20.)—F. V. GRANGE, Alvaston, Nantwich, **Desire**.

II. (£10.)—T. MAKIN, Castleford, **Silver Mint**.

Equal III. (£2 10s.)—LADY WRIGHT, Edgbaston Riding School, **Tanapex**, and J. TAYLOR, Stretton, **Tiny**.

A Challenge Cup, value £50, to be won three times before becoming the absolute property of the winner was given by a Member of the Society to the winner of the First Prize in Class 66.

SPECIAL PRIZES.

Offered by the British Show Jumping Association to Members of that Association who had paid their Subscriptions for the current year.

A Silver Medal to the owner of the Pony being a prize winner which made the least number of faults in Class 63, not having won a first Prize value £10 in an Open Class and not having previously won the Medal this year.

P. CHAPLIN, **Paddy**.

A Silver Medal to the owner of the Horse which made the least number of faults in Class 66, the Horse being a prize winner in the Class and not having previously won the Medal this year.

F. V. GRANGE, **Desire**.

CATTLE.

DEVON.

(£37 towards the Prizes in the Devon Classes and the Champion Prizes were given by the Devon Cattle Breeders' Society).

CLASS 67.—*Devon Cow or Heifer, in-Milk or in calf, calved in or before 1928.* [5 entries.]

I. (£10.)—CECIL BRENT, Clapit, Callington, Cornwall, **Clapit Dainty 10th** (41040), born 31st March, 1928; s Pound Romper (12413), d Clapit Dainty 7th (37749), s d Highfield Gem (8919). (Last calf 24th January, 1931).

II. (£5.)—W. J. THOMAS, Prospect House, Landkey, Barnstaple, **Clapit Gay Lass 27th**, born 26th January, 1926, bred by C. Brent, Callington, Cornwall; s Pound Romper, d Clapit Gay Lass 20th.

III. (£2.)—W. J. THOMAS, **Clapit Snowdrop 2nd**, born 12th March, 1927, bred by C. Brent, Callington, Cornwall; s Highfield Gem, d Hendra Snowdrop 4th.

R.—ABRAHAM BRAY, Mears, Burlescombe, Wellington, Somerset, **Mear's Melon**, born 1st March, 1928; s Nowers Delight, d Mears Tulip 2nd, s d Holcombe Tip Top.

CLASS 68.—*Devon Dairy Cow, in-Milk or in calf, the property of a member of the Devon Cattle Breeders' Society and entered in the Dairy Section of the Herd Book.* [2 entries.]

I. (£10.)—ROBERT BRUFORD, Nerrols, Taunton, **Sandhill Hester 11th** (37092), born 7th January, 1924, bred by A. W. King, Sandhill, Washford, Somerset; s Roadwater Buttermen (11645), d Sandhill Hester 5th (36047), s d Lovely's Duke 6th (8965).

II. (£5.)—ROBERT BRUFORD, **Wynford Rusty 2nd** (C. 1224), born 10th December, 1926, bred by J. H. Chick, Wynford Eagle, Dorchester; s Chalmington Gorgeous 2nd (12582), d Wynford Rushy (B. 11070), s d Wynford Pirate (11309). (Last calf 12th December, 1930).

CLASS 69.—*Devon Heifer, calved in 1929.* [8 entries.]

I. (£10.)—CECIL BRENT, Clapit, Callington, Cornwall, **Clapit Snowdrop 4th** (42027), born 12th July; s Highfield Gem (8919), d Hendra Snowdrop 7th (37187).

II. (£5.)—J. C. H. THOMAS, Bartridge, Umlerleigh, Devon, **Clapit Gay Lass 32nd** (42019), born 12th February, bred by C. Brent, Clapit, Callington; s Pound Romper (12413), d Clapit Gay Lass 20th (34698), s d Highfield Gem (8919).

III. (£2.)—R. GYNN & SON, Treslay, Boscastle, **Treslay Snowdrop**, born 3rd February; s Netherexe Good Sort (13693), d Lanbrenny Favourite (38433), s d Whiteleigh Captain (11293).

R.—ABRAHAM SKINNER NEWBERY, junr., Newenham House, Axminster, Devon, **Newenham Nancy 4th**, born 6th March, bred by C. H. Shrimpton, Glanville Farm, Broadhembury; s Conquest Heather Boy (13942), d Sandhill Heste: 15th (37093), s d Roadwater Buttermann (11645).

CLASS 70.—*Devon Heifer, calved in 1930.* [8 entries.]

I. (£10.)—W. J. THOMAS, Prospect House, Landkey, Barnstaple, **Prospect Snowdrop** (L.W. A1), born 15th February; s Pound Romper, d Clampit Snowdrop 2nd.

II. (£5.)—H. H. BROADMEAD, J.P., Enmore Castle, near Bridgwater, Som., **Enmore New Moon**, born 3rd January; s Werrington Lord (13831), d Avercombe Moonstone (37583), d Overton Masterpiece (11152).

III. (£2.)—J. C. H. THOMAS, Bartridge, Umberleigh, **Bartridge Alice**, born 2nd April; s Carey Sport (13917), Highfield Alice 5th (38361), s d Clampit Dreadnought (11797).

R.—CECIL BRENT, Clampit, Callington, Cornwall, **Clampit Gay Lass 37th**, born 12th May; s Highfield Gem (8919), d Clampit Gay Lass 6th (27309), s d Ford Plumper (7252).

H.C.—ABRAHAM SKINNER NEWBERY, junr., Newenham House, Axminster, Devon, **Newenham Nancy 6th**, born 3rd January; s Avercombe Whats Wanted (12124), d Plum (35456), s d Kytton Prince (10648).

CLASS 71.—*Devon Bull, calved in or before 1928.* [3 entries.]

I. (£10.)—J. LEWIS, Washfield, Tiverton, Devon, **Netherexe Curly Boy** (13259), born 29th January, 1925, bred by Alford Bros., near Exeter; s Nerrols Airman (11968), d Pickwell Curly Coat (36521), s d Pickwell Jacob 3rd (10250).

II. (£5.)—ABRAHAM TRIBLE & SONS, Halsdon, Holdsworth, **Clampit Gold Mine 2nd** (13930), born 1st February, 1927, bred by Cecil Brent, Clampit, Callington; s Pound Romper (12413), d Clampit Gay Lass 20th (34698), s d Highfield Gem (8919).

R.—Major R. C. COLDWELL, Spring Grove, Milverton, Somerset, **Carey Barrister** (14341), born 17th March, 1928, bred by F. G. Stanbury, Carey Barton, Launceston, Cornwall; s Highfield Cowboy (11514), d Carey Darkie 5th (37471), s d Cutsey Guardsman (11432).

CLASS 72.—*Devon Bull, calved in 1929.* [2 entries.]

I. (£10.)—B. W. BEER, Langley Barton, Umberleigh, **Admiral Stuckey** (14706), born 2nd March, bred by J. C. Thomas, Bartridge, Umberleigh; s Court Bribe (13071), d Jellicoe's Stuckey 5th (30243), s d Nowers Jellicoe (9011).

II. (£5.)—R. GYNN & SON, Treslay, Boscastle, **Ham Mill Favourite 4th** (14883), born 17th May, bred by Fred Stanbury, Ham Mill, Launceston; s Clampit Faithful (12593), d Northmoor Pansy (32460), s d Gotton Prince 2nd (8070).

CLASS 73.—Devon Bull, calved in 1930. [3 entries.]

I. (£10.)—CECIL BRENT, Clampit, Callington, Cornwall, **Clampit Goldmine 3rd**, born 31st January; s Pound Romper (12413), d Clampit Gay Lass 20th, s d Highfield Gem.

II. (£5.)—FRED YENDELL, Wood Barton, Morchard Bishop, **Morchard Curly Boy**, born 1st March; s Carey Darkie Boy 2nd (13908), d Milkmaid 2nd (38772), s d Town Peerless (11681).

R.—GEORGE CLEVERLY ALEXANDER, Winterbourne Stoke, Salisbury, **Stoke Friar**, born 25th January; s Stoke Glory, d Stoke Bratton 2nd, s d Cutsey Larkspur.

CLASS 73a.—Devon Dairy Bull, calved in 1929 or 1930, entered in the Dairy Section of the Devon Book, Dam and Sire's Dam having yielded a minimum of 6,000lbs. Milk during a Government stipulated year. [1 entry.]

I. (£10.)—ROBERT BRUFORD, Nerrols, Taunton, **Nerrols Laskar**, born 1st April, 1930; s Coryton Butter Boy 2nd (14387), d Chardstock Moline 2nd C. 800), s d Halsend Laddie.

CHAMPION PRIZES.

Best Cow or Heifer, exhibited in the Devon Classes.

I. (£5.)—C. BRENT, **Clampit Dainty 10th**.

R.—W. J. THOMAS, **Prospect Snowdrop**.

Best Bull, exhibited in the Devon Classes.

I. (£5.)—C. BRENT, **Clampit Goldmine 3rd**.

R.—J. LEWIS, **Netherexe Curly Boy**.

SOUTH DEVON.

CLASS 74.—South Devon Cow, calved before 1928, in calf or having had a full-time calf on or after January 1, 1931. [6 entries.]

I. (£10.)—HENRY CHAFFE, Harestone, Brixton, S.O., Devon, **Manor Primrose 2nd**, born 6th May, 1923, bred by W. Walke, East Allington, Devon; s Haccombe Ruby's King, d Primrose 6th, s d Offields Monogram. (Last calf 12th August, 1930).

II. (£5.)—ELLEN FORD, Wrenwell Farm, Denbury, Newton Abbot, Devon, **Arosa**, born 16th October, 1927; s Compton Cowboy (11060), d Wrenwell Manageress (A. 11), s d Park Hill Lad (10820). (Last calf 2nd January, 1931).

III. (£2.)—RICHARD REED DAWE, Ford Farm, Tavistock, Devon, **Primrose 9th** (31890), born 10th August, 1925, bred by J. S. Wakem, Hillside, South Brent, Devon; s Edmeston General 12th (10666), d Primrose 8th (17932). (Last calf 28th January, 1931).

R.—GEORGE WILLS, Rydon, Newton Abbot, Devon, **Stoke No. 50** (30555), born 22nd July, 1924, bred by S. Shilston, Stoke Gabriel, Totnes; s General (10247), d Stoke (No. 30), s d Trehele Milkman (7394). (Last calf 1st November, 1930).

V.H.C.—LORD MILDMAY OF FLETE, Ermington, Devon, **Flete Crocus** (33450), born 8th April, 1927; s Gerston King (10700), d Flete Carnation (27260), s d Trehele Forester (9500). (Last calf 3rd January, 1931).

CLASS 75.—*South Devon Heifer, calved in 1929.* [2 entries.]

I. (£10.)—LORD MILDMAY OF FLETE, Ermington, Devon, **Flete Dandy** (34854), born 8th March; s Court Perfection (10632), d Flete Pinks 4th (31528), s d Hollowcoombe Tip Top (9843).

II. (£5.)—LORD MILDMAY OF FLETE, **Flete Daffodil** (34852), born 1st January; s Court Perfection (10632), d Flete Crocus (32627), s d Gerston King (10700).

CLASS 76.—*South Devon Heifer, calved in 1930.* [2 entries.]

I. (£10.)—LORD MILDMAY OF FLETE, Ermington, Devon, **Flete Empress**, born 10th January; s Court Perfection (10632), d Flete Countess 3rd (28889), s d Trehele Forester (9500).

II. (£5.)—HENRY CHAFFE, Harestone, Brixton, S.O., Devon, **Harestone Gladys 21st**, born 3rd January; s Merryman (11181), d Harestone Gladys 16th, s d Keaton Prince 3rd.

CLASS 77.—*South Devon Bull, calved before 1930.* [4 entries.]

I. (£10.)—J. WAKEHAM, Rowden, Newton Ferrers, S. Devon, **Cadet** (11366), born 25th July, 1925, bred by the late Lewis Alfred Oldrieve, West Prawle, Salcombe, Devon; s Lavender's Boy 3rd (9863), d Vera 3rd (21866), s d Bowden Strawberry Boy (6988 A.)

II. (£5.)—LORD MILDMAY OF FLETE, Ermington, Devon, **Englebourne 20th** (12225), born 26th January, 1928, bred by T. W. Luscombe, Great Englebourne, Totnes; s Cholwells Bachelor (11380), d Alice (30248), s d Dittisham Hero (9109).

III. (£2.)—J. M. ROBERTS, Colan Barton, St. Columb, **Scattergood** (11905), born 9th July, 1926; s Ramsland Champion 5th (10850), d Kitty (14473), s d Leyman (2406).

CLASS 78.—*South Devon Bull, calved in 1930.* [1 entry.]

I. (£10.)—LORD MILDMAY OF FLETE, Ermington, Devon, **Flete Perfection 9th**, born 22nd February; s Court Perfection (10632), d Flete Lilly 2nd (27261), s d Trehele Forester (9500).

CHAMPION PRIZES.

GIVEN BY THE SOUTH DEVON HERD BOOK SOCIETY.

Best Cow or Heifer exhibited in the South Devon Classes.

I. (£4 4s.)—H. CHAFFE, **Manor Primrose 2nd.**

R.—E. FORD, **Arosa.**

Best Bull exhibited in the South Devon Classes.

I. (£4 4s.)—J. WAKEHAM, **Cadet.**

R.—LORD MILDMAY OF FLETE, **Englebourne 20th.**

DAIRY SOUTH DEVON.

Classes 79 to 81. Cancelled through insufficiency of entries).

SHORTHORN.

CLASS 82.—*Shorthorn Cow or Heifer, in-Milk, calved in or before 1928.* [3 entries.]

I. (£10.)—J. R. UPSON, Rush Court, Wallingford, roan, **Collynie Royal Princess 3rd** (114207), born 15th January, 1928; bred by Duthie Webster, Collynie, Tarves, Aberdeenshire; s Quetta (218391), d Collynie Princess 45th (81070), s d Collynie Royal Leader (188656). (Last calf 25th December, 1930).

II. (£5.)—Col. Sir FRANK BEAUCHAMP, Bart., Woodborough House, near Bath, red roan, **Climsland Princess Royal 4th** (57511), born 30th January, 1924, bred by H.R.H. Prince of Wales, Stoke Climsland, Cornwall; s Collynie Herald (179685), d Climsland Princess Royal 2nd, s d Christian King.

CLASS 83.—*Shorthorn Heifer, calved in 1929.* [5 entries.]

I. (£10.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, roan, **Collynie Augusta Belle**, born 8th March, bred by Duthie Webster, Tarves, Aberdeen; s Balcairn Beaver (195853), d Cudham Augusta 9th, s d Cluny Proud Orangeman (154878).

II. (£5.)—The VISCOUNT PORTMAN, Staple Manor, Staple Fitzpaine, Taunton, Somerset, roan, **Thurlbear Rosebud**, born 27th February; s Lackham Golden King (216875), d White Bud (89989), s d Viscount (203655).

H.C.—R. G. M. WILSON, The End House, Lady Margaret's Road, Cambridge, roan, **Lady Broadhooks 8th** (115952), born 29th November, bred by Lt.-Col. E. P. Brassey, Upper Slaughter, Bourton-on-the-Water, Glos.; s Calrossie Mark Time (221734), d Lady Broadhooks 5th (94389), s d Abbey-mains Combatant (168245).

C.—GEOFFREY FOWNES LUTTRELL, Dunster Castle, Dunster, roan, **Dunster Raspberry**, born 28th July; s Gainford Nonpareil Wonder (207491), d Rose of Glendale (77314), s d Illustrious (190799).

CLASS 84.—*Shorthorn Heifer, calved in 1930.* [4 entries.]

I. (£10.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, roan, **Rosewood Countess**, born 20th January, bred by J. Durne, Uppermill; s Millhills Broadarrow (209677), d Rosewood Princess 2nd (84836), s d Millhills Clarion (174123).

II. (£5.)—Sir GOMER BERRY, Bart., red, **Pendley Pride**, born 1st January; s Millhills Rosicrucian (224992), d Pride of Basildon, s d Balcairn Consul (Vol. 70).

III. (£2.)—Col. Sir FRANK BEAUCHAMP, Bart., Woodborough House, near Bath, roan, **Woodborough Butterfly 5th**, born 14th May; s Gainford Nonpareil Wonder (207491), d Woodborough Butterfly, s d Bapton Chevalier (187075).

C.—R. G. M. WILSON, The End House, Lady Margaret's Road, Cambridge, red, **Secret Kate 4th**, born 13th July, bred by Lt.-Col. E. P. Brassey, Upper Slaughter, Bourton-on-the-Water, Glos.; s Calrossie Mark Time (221734), d Rosehough Secret 3rd, s d The Last Baron (157072).

CLASS 85.—*Shorthorn Bull, calved before 1929.* [2 entries.]

I. (£10.)—J. D. BOWEN, Nantfforch, Welshpool, roan, **Powysland Golden Star** (Vol. 74, page 300, 225663), born 7th April, 1927, bred by Earl of Powis, Powis Castle, Welshpool; s Royal Merlin (166726), d Powysland Broadhooks 3rd (53915), s d Knight Champion (131804).

C.—WILLIAM GEORGE DAVIS & SON, Land Farm, Rolston, Hewish, near Bristol, roan, **Haselor Bandmaster** (230762), born 17th August, 1928, bred by George Swift, Haselor, Evesham, Worcs.; s Page Boy (218021), d Gay Butterfly (78425), s d Air Service (177664).

CLASS 86.—*Shorthorn Bull, calved in 1929.* [4 entries.]

I. (£10.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, dark roan, **Cliny Rosewood Rover**, born 17th April, bred by Lady Cathcart, Cluny Castle; s Red Robin (210743), d Cluny Rosewood, s d President of the Mint (109670).

II. (£5.)—Miss NANCY FEILDHOUSE, Shipton Manor, Andoversford, red **Electer of Stonelands**, born 18th March, bred by N.M.Lee, Stonelands, Shipton-on-Craven; s Dargill Clarmount (170869), d Inverness Mistress Eliza.

III. (£2.)—Col. Sir FRANK BEAUCHAMP, Bart., Woodborough House, near Bath, red, **Woodborough Royal Escort**, born 14th July; s Gainford Nonpareil Wonder (207491), d Sherwood Eliza 2nd (31802), s d Collynie Lavender Lad (154922).

H.C.—LADY CURRE, Itton Court, Chepstow, red, **Godinton Hermit** (237410), born 17th February, bred by Hon. Mrs. Bruce Ward, Godinton, Ashford, Kent; s Golden Harvest 2nd, d Godinton Groat 12th, s d Godinton Fearless Guardsman.

CLASS 87.—*Shorthorn Bull, calved in 1930.* [4 entries.]

I. (£10.)—LADY JEANE WILLS, Langford Court Farm, Langford near Bristol, red, **Rickford Golden Sun**, born 30th January, bred by the late Sir Vernon Wills, Bart., Langford Court Farm, Langford, near Bristol; s Calrossie Butterly Monarch (228718), d Rickford Golden Lady, s d Cudham Prospect (206506).

II. (£5.)—R. G. M. WILSON, The End House, Lady Margaret's Road, Cambridge, white, born 8th January, bred by N. N. Lee, Stonelands, Arncliffe, Skipton-in-Craven, Yorks; s Collynie Red Eagle (214703), d Orange Blossom 67th, s d Collynie Hero (170456).

C.—The VISCOUNT PORTMAN, Staple Manor, Staple Fitzpaine, Taunton, Somerset, red and little white, **Thurlbear Rodney**, born 21st April; s Garland (207538), d Ruby Bud 2nd (53895), s d Pellipar Gold Raider (165826).

CHAMPION PRIZE.

GIVEN BY THE SHORTHORN SOCIETY.

Best Bull in the Shorthorn Classes entered in or eligible for entry in Coates's Herd Book, with Silver Medal to the Breeder.

I. (£10.)—Sir GOMER BERRY, Bart., **Cliny Rosewood Rover**.

R.—LADY JEANE WILLS, **Rickford Golden Sun**.

DAIRY SHORTHORN.

The First Prizes in Classes 89 and 91 (and a Silver Medal to the Breeder of the winners) were given by the Shorthorn Society and the First Prize in Class 93 by the Dairy Shorthorn Association.

CLASS 88.—*Dairy Shorthorn Pedigree Cow, in-Milk, calved in or before 1927.* [21 entries.]

I. (£10.)—Sir WILLIAM HICKING, Bart., Brackenhurst Hall, Southwell, Notts, white, **Brackenhurst Jean** (49994), born 21st June, 1923; s Royal Ringleader (166746), d Grendon Jeanie (1030), s d Lord Nottingham (116317).

II. (£5.)—CECIL M. WILLS, M.C., Sherfield Court, near Basingstoke, **Brae Easter Gift**, born 19th April, 1924, bred by T. C. Pullinger; s Donald (142040), d Darlington Dairymaid 2nd, s d Waterloo Wild King.

III. (£2.)—Major R. F. FULLER, Great Chalfield, Melksham, red and little white, **Chalfield Rose 15th** (96891), born 14th April, 1927; s Preshute Waterloo Don (174965), d Chalfield Rose 6th (24109), s d Wild Gift (146378). (Last calf 13th April, 1931).

R.—W. R. WITHERS, Lower Court, Long Ashton, Bristol, roan, **Elkstone Musical 7th**, born 19th November, 1926, bred by W. H. Hitch, Elkstone Manor, Cheltenham; s Kelmscott Conjuror 63rd (181983), d Musical Bouquet s d Beau Brocade (153897). (Last calf 2nd July, 1930).

V.H.C.—LORD DULVERTON, Batsford Park, Moreton-in-Marsh, Glos., red and little white, **Thornby Duchess Cran 3rd** (69516), born 2nd July, 1924, bred by Capt. A. S. Wills, Thornby, Northampton; s Thornby Exchequer (176718), d Thornby Duchess Cran (9289), s d Thornby Pioneer (133922). (Last calf 23rd April, 1931).

H.C.—F. S. FRANCIS, Wilkinthorpe Farm, Templecombe, roan, **Duntish Lee**, born 23rd November, 1920, bred by Capt. T. P. Halford, Duntish Court, Dorset; s Furbelow King, d Lady Lee 24th, s d Darlington Dairy King. (Last calf 28th March, 1931).—JOHN PIERPONT MORGAN, Estate Office, Wall Hall, Watford, red and little white, **Rockley Waterloo Sunset** (92576), born 6th January, 1926, bred by H. de H. Whatton, Rockley Manor, Marlborough; s Aldenham Wild King (177684), d Waterloo Daybreak, s d Fairy Minstrel (125489). (Last calf 2nd March, 1931).

C.—Capt. P. D. A. COURTENAY, Greenlawn, Burnham-on-Sea, Somerset, dark roan, **Wild Eyes Beauty 2nd** (68379), born 22nd May, 1924, bred by Joseph Thomlinson, Kirklington; s Trilby King (176903), d Wild Eyes Beauty (30884), s d Wild Eyes Signet (153071).—Capt. P. D. A. COURTENAY, roan, **Lovely Wild Eyes 4th** (68377), born 9th May, 1924, bred by Joseph Thomlinson, Kirklington; s Trilby King (176903), d Lovely Wild Eyes, s d Wild Eyes Signet (153071). (Last calf 7th March, 1931).—LORD DULVERTON, roan, **Batsford Ringlet 9th** (103960), born 18th May, 1927; s Sorbrook Foggathorpe Premier 2nd (211562), d Batsford Ringlet 4th (69560), s d Thornby Lord Foggathorpe (167521). (Last calf 21st April, 1931).—P. C. TORR, Shapwick, Blandford, roan, **Fieldgrove Heather**, born 22nd September, 1924, bred by Messrs. Braithwaite, Fieldgrove, Bitton, Glos, s Kelmscott Conjuror 36th, d Mulsastor White Heather, s d Kelmscott Jellicoe 9th. (Last calf 19th March, 1931).

CLASS 89.—*Dairy Shorthorn Pedigree Cow, in-Milk, calved in or before 1927, eligible for, and entered in Coates's Herd Book, or pedigree accepted for such entry previous to the Show, and not having previously won a similar prize offered by the Shorthorn Society in 1931, milked in the Ring before judging, under Conditions 54. [22 entries.]*

I. (£10.)—Sir WILLIAM HICKING, Bart., Brackenhurst Hall, Southwell, Notts, white, **Brackenhurst Jean** (49994), born 21st June, 1923; s Royal Ringleader (166746), d Grendon Jeanie (1030), s d Lord Nottingham (116317).

II. (£5.)—CECIL M. WILLS, M.C., Sherfield Court, near Basingstoke, **Bræ Easter Gift**, born 19th April, 1924, bred by T. C. Pullinger; s Donald (142040), d Darlington Dairymaid 2nd, s d Waterloo Wild King.

III. (£2.)—Major R. F. FULLER, Great Chalfield, Melksham, red and little white, **Chalfield Rose 15th** (96891), born 14th April, 1927; s Presalute Waterloo Don (174965), d Chalfield Rose 6th (24109), s d Wild Gift (146378). (Last calf 13th April, 1931).

R.—W. R. WITHERS, Lower Court, Long Ashton, Bristol, roan, **Elkstone Musical 7th**, born 19th November, 1926, bred by W. H. Hitch, Elkstone Manor, Chippenham; s Kelmscott Conjuror 63rd (181983), d Musical Bouquet, s d Beau Brocade (153897). (Last calf 2nd July, 1930).

CLASS 90.—*Dairy Shorthorn Pedigree Heifer, in-Milk, calved in or after 1928. [3 entries.]*

I. (£10.)—Sir WILLIAM HICKING, Bart., Brackenhurst Hall, Southwell, Notts, roan, **Longhills Wild Eyes 4th** (112961), born 13th March, 1928, bred by Eustace Abel Smith, Longhills, Lincoln; s Histon Wild Prince (156497), d Wild Eyes Lady, s d Rigg Head Baron (138875).

II. (£5.)—JOHN PIERPONT MORGAN, Estate Office, Wall Hall, Watford, red and little white, **Aldenham Wild Eyes 2nd** (18790), born 17th February, 1928; s Aldenham Kirklevington Duke 2nd (204357), d Aldenham Wild Eyes (77349), s d Cantab Jocelyn's Armistice (147744). (Last calf 4th February, 1931).

CLASS 91.—*Dairy Shorthorn Pedigree Heifer, calved in or after 1928, eligible for and entered in Coates's Herd Book, or Pedigree accepted for such entry previous to the Show, and not having previously won a similar prize offered by the Shorthorn Society in 1931, milked in the Ring before Judging, under Conditions 54. [3 entries.]*

I. (£10.)—JOHN PIERPONT MORGAN, Estate Office, Wall Hall, Watford, red and little white, **Aldenham Wild Eyes 2nd** (18790), born 17th February, 1928; s Aldenham Kirklevington Duke 2nd (204357), d Aldenham Wild Eyes (77349), s d Cantab Jocelyn's Armistice (147744). (Last calf 4th February, 1931).

CLASS 92.—*Dairy Shorthorn Pedigree Bull, calved before 1930.*
[9 entries.]

I. (£10.)—DEBENHAM & TORY, Anderson, Blandford, Dorset, roan, **Anderson Bates 15th** (220511), born 24th May, 1927, bred by Robert N. Tory, Anderson, Blandford, Dorset; s Anderson Champion Bates (186667), d Anderson Red Rose 2nd (43543), s d Kelmscott Conjuror 3rd (137269).

II. (£5.)—Sir WILLIAM HICKING, Bart., Brackenhurst Hall, Southwell, Notts, roan, **Underley Prince George** (240859), born 9th March, 1929, bred by Lord Henry C. Bentinck, Underley Hall, Kirkby Lonsdale, Westmorland; s Foxhill Royal Charles (189835), d Underley Stella (58343), s. d Lingbird (164839).

III. (£2.)—Major G. MILLER MUNDY, Red Rice, Andover, Hants, red and little white, **Redrice Winston** (225914), born 21st September, 1927; s Longhills Lord Price (200551), d Lady Winsonia 2nd (Vol. 63, page 1259), s d Walby Star (128699).

R.—Lt.-Col. H. J. STIBBARD, O.B.E., Army Vocational Training Centre, Chiseldon, Wilts, roan, **Wildham Snowcloud** (241171), born 26th April, 1929, bred by H. S. Horne; s Brent Barrington Snowstorm (205361), d Iwerne Georgiana (50716), s d Kelmscott Conjuror 19th (143185).

H.C.—WILLIAM BUTLER, Gatcombe, Flax Bourton, Somerset, roan, **Gatcombe Minstrel 6th** (215774), born 6th March, 1926; s Tockenham Minstrel 12th (176831), d Gatcombe Queen Mary 2nd (21812), s d Thurnham Linksman (152577).

C.—HARRY NORTON, Gains Cross, Blandford, Dorset, white, **Dolpinlee Waterloo Pride** (236731), born 4th September, 1929, bred by J. Crowe, Ashe Manor, Overton, Hants; s Ashe Barrington Pride (204543), d Eaton Dolpinlee Waterloo 2nd (31630), s d Carleton Style (147781).

CLASS 93.—*Dairy Shorthorn Pedigree Bull, calved in 1930, entered or pedigree provisionally accepted for entry in Coates's Herd Book and registered or provisionally accepted for registration in the Year Book of the Dairy Shorthorn Association, and entries must have been accompanied by a certificate signed by the Secretary of the Association to this effect. (An animal having taken one of these prizes was not eligible to compete again the same year except at the R. A.S.E. Show).* [12 entries.]

I. (£10.)—Major G. MILLER MUNDY, Red Rice, Andover, dark roan, **Anderson Wild Bates 8th**, born 21st February, bred by Debenham & Tory, Anderson, Blandford; s Bladen Minstrel 4th (213590), d Anderson Wild Eyes 3rd (32400), s d Kelmscott Conjuror 3rd (137269).

II. (£5.)—F. S. FRANCIS, Wilkinthroop Farm, Templecombe, roan, **Seathistle**, born 19th August; s Seaplane, d Troop Wild Eyes 4th, s d Ithells Theatte 2nd.

xxxiv *Prizes awarded to Dairy Shorthorn and Hereford Cattle.*

III. (£2).—**JOHN ALWAY**, Beach, Bitton, near Bristol, red roan, **Doynton Craggsman**, born 1st March, bred by H. Lear, Bottoms Farm, Doynton, near Bristol; s Brill Victory 2nd (205535), d Molly (Craggs 5th, s d Rhode Juggler 4th (144897)).

R.—**Capt. D. M. WILLS**, Barley Wood, Wrington, Somerset, red and little white, **Barleywood Easter Monday**, born 21st April; s Kingsthorpe Royal Rubio 3rd, d Kingsthorpe Wild Rose 5th, s d Kingsthorpe Royal Darlington 2nd.

V.H.C.—**HARRY GREEN**, Dudwell Farm, Chewton Mendip, Bath, roan, **Chewton Gay Duke**, born 12th April; s Bonakers White Knight (205241), d Oakhill Thrush (13440), s d Somerford Rubio 2nd (145602).

H.C.—**LORD DULVERTON**, Batsford Park, Moreton-in-Marsh, Glos., red and little white, **Batsford Dewdrop Premier 2nd**, born 21st May; s Sorbrook Foggathorpe Premier 2nd (211562), d Batsford Mayflower 8th (92923), s d Sorbrook Troubadour (194229).

C.—**J. CRUMPLER & SONS**, Longlands, North Coker, Yeovil, red roan, **Foxbury Barrington King**, born 13th April; s Sorbrook Dalesman (226584), d Itchington Barrington Queen (42523), s d Gay Emperor (163485).

SPECIAL PRIZE.

GIVEN BY THE DAIRY SHORTHORN ASSOCIATION.

Best Bull in Class 93, registered or provisionally accepted for registration in the Year Book of the Dairy Shorthorn Association and qualified in accordance with Conditions No. 55.

I. (£10).—**Capt. D. M. WILLS**, **Barleywood Easter Monday**.

R.—**J. CRUMPLER & SON**, **Foxbury Barrington King**.

HEREFORD.

CLASS 94.—*Hereford Cow, in-Milk, calved before September 1 1928.*

[1 entry.]

I. (£10).—**HIS MAJESTY KING GEORGE V**, The Royal Farms, Windsor, **Blue Bird**, born 5th April, 1923; s Lulsley Statesman (37327), d Blue Sky (Vol. 50, page 869), s d Father Christmas (30557). (Last calf 27th December, 1930).

CLASS 95.—*Hereford Heifer, calved on or between September 1, 1928, and August 31, 1929.* [1 entry.]

I. (£10).—**HIS MAJESTY KING GEORGE V**, The Royal Farms, Windsor, **Windsor Ellen**, born 24th September, 1928; s Aldersend Monarch (38469), d Envy (Vol. 50, page 1010), s d Admiral Beatty (31222).

CLASS 96.—*Hereford Heifer, calved on or after September 1, 1929.*
[5 entries.]

I. (£10.)—EDWARD WEBB & SONS (STOURBRIDGE) LTD., Astwood Farm, Stoke Works, Bromsgrove, Worcs., **Astwood Ladyday**, born 24th October, 1929; s Astwood Printer (48881), d Astwood Ladybird (Vol. 56, page 644), s d Conway (32398).

II. (£5.)—J. MEDLICOTT, Bodenham Court, Hereford, **Maggie**, born 4th December, 1929, bred by R. Medlicott, Hampton Park House, Stoke Prior; s Bodenham Barrister (45668), d Marjorie (Vol. 58, page 365), s d Defiance (36526).

III. (£2.)—J. MEDLICOTT, **Sunray 2nd**, born 26th September, 1929; s Bodenham Barrister (45668), d Garland (Vol. 58, page 364), s d Pimate (39833).

R.—HIS MAJESTY KING GEORGE V, The Royal Farms, Windsor, **Windsor Lexie**, born 31st October, 1929; s Aldersend Monarch (38469), d Lucy (Vol. 50, page 329), s d Twyford Triumph (35704).

H.C. VISCOUNTESS HEREFORD, Hampton Court, near Leominster, **Hampton Court Gay Lass**, born 19th October, 1929; s Freetown Vincent (44880), d Louchy Lass, s d War Loan (35736).

CLASS 97.—*Hereford Bull, calved before September 1, 1928.* [1 entry.]

I. (£10.)—A. A. G. HANNAM, Ridge Farm, Chilmark, Salisbury, **Aldersend Jovial** (G. 21), born 18th April, 1928, bred by J. H. Whiting, Aldersend, Tarrington, Hereford; s Wyeseide Cheerful (47776), d Aldersend Lovely, s d Leen Lawrence (43879).

CLASS 98.—*Hereford Bull, calved on or between September 1, 1928, and August 31, 1929.* [3 entries.]

I. (£10.)—PERCY E. BRADSTOCK, Free Town, Tarrington, Herefordshire, **Free Town Royalist** (50502), born 7th March, 1929; s Gaines Albion (45982), d White Heather (Vol. 59, page 188), s d Free Town Reformer (43719).

II. (£5.)—JAMES PRICE & SON, Glantowy, Llandovery, **Tarrington Sunstar** (51198), born 14th February, 1929, bred by H. R. Griffiths, Little Tarrington, Hereford; s Orion of Pitsford (45197), d Salmana (Vol. 52, page 354), s d Marconi (33969).

R.—EDWARD WEBB & SONS (STOURBRIDGE) LTD., Astwood Farm, Stoke Works, Bromsgrove, Worcs., **St. Fagan's Commander** (51140), born 9th April, 1929, bred by Sir D. R. Llewellyn, Bart., The Court, St. Fagans, Cardiff; s St. Fagan's Emperor (5114), d Cornelia (Vol. 51, page 681), s d Leen Vistula (31664).

CLASS 99.—*Hereford Bull, calved on or after September 1, 1929.*
[3 entries.]

I. (£10.)—PERCY E. BRADSTOCK, Free Town, Tarrington, Herefordshire, **Free Town Historian**, born 2nd September, 1929; s Eyton Taurus (49201), d Plover (Vol. 57, page 180), s d Crossways Saphlute (44732).

xxxvi *Prizes awarded to Hereford and Gloucestershire Cattle.*

II. (£5.)—A. A. G. HANNAM, Ridge Farm, Chilmark, Salisbury, **Perton Miller** (DD/L4), born 3rd September, 1929; bred by Executors of J. H. Dent, Perton Court; s Gobion Emblem 2nd (48202), d Melba 4th (DD/B 10), s d Sunclad (28762).

R.—VISCOUNTESS HEREFORD, Hampton Court, near Leominster, born 7th September, 1929; s Free Town Vincent (44880), d Gamester Field, s d Nicola (41328).

CHAMPION PRIZES.

GIVEN BY THE HEREFORD HERD BOOK SOCIETY.

Best registered Cow or Heifer in the Hereford Classes.

I. (£10.)—E. WEBB & SONS (STOURBRIDGE) LTD., **Astwood Ladyday.**

R.—H.M. KING GEORGE V, **Windsor Ellen.**

Best registered Bull in the Hereford Classes.

I. (£10.)—P. E. BRADSTOCK, **Free Town Royalist.**

R.—J. PRICE & SON, **Tarrington Sunstar.**

SUSSEX.

(Classes 100, 101 and 102. Cancelled through insufficiency of entries).

GLUCESTERSHIRE.

(£10 towards the Prizes in these Classes were given by the Gloucestershire Cattle Society).

CLASS 103.—*Gloucestershire Cow or Heifer, in-Milk or calf, calved before January 1, 1929.* [3 entries.]

I. (£10.)—THE DUKE OF BEAUFORT, Badminton, Glos., **Badminton Perfect 2nd** (175), born 18th August, 1920; s Badminton Bentley (2), d Badminton Perfect (27), s d Badminton Jock (1).

II. (£5.)—THE DUKE OF BEAUFORT, **Badminton Matchless** (435), born 20th December, 1926; s Colesborne Banker (364), d Badminton Perfect 2nd (175), s d Badminton Bentley (2).

R.—Col. H. C. ELWES, D.S.O., M.V.O., Colesborne, Cheltenham, black-brown and white, **Colesborne Ina 2nd** (485), born 4th November, 1928; s Badminton Chancellor (372), d Colesborne Ina (484), s d Hardwicke Councillor 2nd (142).

CLASS 104.—*Gloucestershire Heifer, calved on or after January 1, 1929.* [5 entries.]

I. (£10.)—Col. H. C. ELWES, D.S.O., M.V.O., Colesborne, Cheltenham, black-brown and white, **Colesborne Beauty 3rd** (517), born 29th August, 1929; s Badminton Chancellor (372), d Colesborne Beauty (375), s d Colesborne Patron (228).

II. (£5.)—EARL BATHURST, C.M.G., Cirencester Park, Cirencester, black-brown, white stripe and tail, **Ciceter Empress** (490), born 7th May, 1929; s Badminton Emperor (443), d Ciceter Wellingtonia (381), s d Badminton Starlight (238).

III. (£2)—THE DUKE OF BEAUFORT, Badminton, Glos., **Badminton Bracelet** (504), born 15th August, 1929; s Dodington Pinkney 3rd (304), d Badminton Handsome 3rd (173), s d Badminton Bentley (2).

CLASS 105.—*Gloucestershire Bull, any age.* [4 entries.]

I. (£10.)—THE DUKE OF BEAUFORT, Badminton, Glos., **Badminton Conjuror** (501), born 15th April, 1928; s Dodington Pinkney 3rd (304), d Badminton Curly 2nd (226), s d Badminton Bentley (2).

II. (£5.)—EARL BATHURST, C.M.G., Cirencester Park, Cirencester, black, white stripe and tail, **Ciceter Primate** (488), born 20th November, 1928; s Dodington Pinkney 3rd (304), d Colesborne Primrose (380), s d Badminton Chancellor (372).

III. (£2.)—EARL BATHURST, C.M.G., Cirencester Park, Cirencester, black, white stripe and tail, **Ciceter Queen's Champion** (477), born 16th March, 1929; s Badminton Champion (314), d Ciceter Lady Mary (301), s d Badminton Starlight (238).

R.—Col. H. C. ELWES, D.S.O., M.V.O., Colesborne, Cheltenham, black-brown and white, **Colesborne Primate** (516), born 1st January, 1930; s Badminton Senator (445), d Colesborne Primavera 2nd (480), s d Colesborne Patron (228).

BRITISH FRIESIAN.

(One fourth of the Prize Money awarded and the Silver Medals in these Classes were given by the British Friesian Cattle Society, and animals entered must have been registered in the B.F.C.S. Herd Book proper, those registered in Supplementary Section not being eligible).

CLASS 106.—*British Friesian Cow or Heifer, any age, in-Milk.*
[6 entries.]

I. (£10.)—J. R. UPSON, Rush Court, Wallingford, Berks, **Moulsoe Elsie 2nd** (108184), born 12th January, 1926, bred by Messrs. Randall Bros., Moulsoe Buildings, Newport Pagnell, Bucks; s Moulsoe Golden King (18087), d Moulsoe Elsie (74336), s d Felhampton Cautious (13947).

II. (£5.)—ALFRED J. CREED, Goldicote Hall, Stratford-on-Avon, Randcourt Peridot (131066), born 29th August, 1928, bred by E. Slinger; s Holyport Ulysses (P.I. 28887), d Craigie Peridot (51680), s d Dunnald Isaac (9539).

III. (£2.)—ARTHUR ALLEN, The Manor, Chesterblade, Somerset, **Glen Nara** (71540), born 2nd January, 1923; s Kingswood Ynteseries (14531), d Glen Nevada (39202), s d Garton Bravo 3rd (6281). (Last calf 7th March, 1931).

R.—T. P. LEWIS, Walter Farm, Barry, Glam., **Darren Blossom**, born 23rd April, 1926, bred by M. H. Llewyn, Tynewydd Herwain, Aberdare, Glam.; s Comieston Abetschaap (P.I. 19617), d Sudbourne Blossom (48992), s d Golf (imp.) Bolermijn (3919). (Last calf 29th September, 1930).

CLASS 107.—*British Friesian Heifer, not in-Milk, calved in 1929.*
[8 entries.]

I. (£10).—ARTHUR ALLEN, Chesterblade, Somerset, **Glen Wallaby** (137032), born 21st April; s Glen Akrin (31035), d Glen Waiwera (82144), s d Kingswood Ynteseries (14531).

II. (£5).—J. R. UPSON, Rush Court, Wallingford, Berks, **Saracens Audrey** (141058), born 7th April; s Saracens Meibloem Beatty (P.I. 33449), d Northdean Audrey 2nd (108460), s d Dell Hollander (P.I. 7655).

III. (£2).—GEORGE GEE, Ely Grange, Frant, Tunbridge Wells, **Herrington Hatsumer's Jean** (P.I. 137718), born 22nd January, bred by Albert Weightman, Middle Herrington Farm, Sunderland; s Wychurst Jan (P.I. 24625), d Mapleton Hilko's Hatsumer (P.I. 73954), s d Mapleton (imp. 1922), Hilko (20907).

R.—MRS. GRAHAM REES-MOGG, Clifford Manor, Stratford-on-Avon, **Clifford Chambers Fuchsia**, born 2nd April; s Hache Burinze (P.I. 25875), d Northdean Meibloem 7th (P.I. 108478), s d Dell Hollander (P.I. 7655).

CLASS 108.—*British Friesian Heifer, calved in 1930.* [7 entries.]

I. (£10).—MRS. GRAHAM REES-MOGG, Clifford Manor, Stratford-on-Avon, **Clifford Chambers Gemma**, born 20th July; s Washway Premier (33615), d Hamels Happy Lassie (94010), s d Hamels Froukjes Roland (P.I. 22985).

II. (£5).—J. R. UPSON, Rush Court, Wallingford, Berks, **Saracens Nancy** (Vol. 20), born 22nd March; s Saracens Meibloem Beatty (P.I. 33449), d Charndon Nancy (102624), s d Crawford (imp. 1922) Beatty 6th (19689).

III. (£2).—ARTHUR ALLEN, Chesterblade, Somerset, **Glen Waimea 2nd** (Vol. 20), born 23rd April; s Glen Akrin (31035), d Glen Waiwera (82144), s d Kingswood Ynteseries (14531).

R.—Capt. F. E. STOBART, Abingworth, Pulborough, Sussex, **Abingworth Favourite**, born 10th January; s Terling Matador (31987), d Abingworth Blossom (100534), s d Northdean Captain (23835).

H.C.—PIDDINGTON (NORTHANTS) ESTATES LTD., Horton, Northampton, **Piddington Ruby**, born 18th January; s Hache Festus (P.I.), d Quinton Ruby, s d Audmore Bram Albert.

C.—ALFRED J. CREED, Goldicote Hall, Stratford-on-Avon, **Goldicote Ruth 2nd** (Vol. 20), born 12th April; s Gadlas Wizard (32751), d Larton Ruth 49th, s d Hedges Bonnie Bles Albert (20301).—MANOR FARM LTD., North Wick, Dundry, near Bristol, **Courey Gem**, born 12th August; s Holyport Serynte Cesar (P.I. 31215), d Holyport Pearl 2nd (117400), s d Holyport (imp. 1922) Renze 2nd (20401).

CLASS 109.—*British Friesian Bull, calved before 1930.* [5 entries.]

I. (£10).—GEORGE GEE, Ely Grange, Frant, Tunbridge Wells, **Douneside Marcellus** (34163), born 2nd October, 1928, bred by Trustees of Sir Alastair W. M. Robert, Bart.; s Douneside Pel Klaas (P.I. 3091), d Douneside Maria (92536), s d Douneside Hatsumerschaap (P.I. 13719).

II. (£5.)—ERNEST B. HALL, Hales Hall, Market Drayton, Salop, **Hales Burika** (P.I., H.B. 35865), born 20th January, 1929; s Hache Buringa (P.I. 25871), d Hales Rika 2nd (P.I. 105484), s d Clockhouse King Akirin (P.I. 11321).

III. (£2.)—Capt. F. E. STOBART, Abingworth, Pulborough, Sussex, **Terling Matador** (31987), born 22nd September, 1926, bred by Lord Rayleigh, Terling Place, near Chelmsford, Essex; s Terling (imp. 1922) Marthus (21533), d Terling Torch 13th (31206), s d Terling Dutchman (5643).

R.—REGINALD AUGUSTUS GAZE, Gubhill Manor, Tewkesbury, **Prestbury Bounty's Pilot** (34843), born 18th January, 1928, bred by F. H. Cock, Prestbury Park, Cheltenham; s Brampton Pilot (27787), d Prestbury Bounty (65538), s d Ingatstone Courier (14439).

C.—ALFRED AUSTIN, Newton House, Sturminster Marshall, **Ingledon Arc-light** (35997), born 6th May, 1929, bred by C. W. Burnell Tubbs, Ingledon Park, Tenterden Park, Kent; s Hache Carjan Ulysses (P.I. 14165), d Hache Arc-light (71754), s d Clockhouse King Akirin (P.I. 11321).

CLASS 110.—*British Friesian Bull, calved in 1930.* [12 entries.]

I. (£10.)—J. R. UPSON, Rush Court, Wallingford, Berks, **Saracens Meibloem Don** (P.I. Vol. 20), born 11th March; s Hache Burinze (P.I. 25873), d Northdean Meibloem 5th (P.I. 96982), s d Northdean (imp. 1922) Marthus Beatty (21081).

II. (£5.) MRS. GRAHAM REES-MOGG, Clifford Manor, Stratford-on-Avon, **Saracens Dennis** (P.I.), born 12th March, bred by J. R. Upson, Rush Court, Wallingford; s Saracens Meibloem Beatty (P.I. 133449), d Lamcote (imp. 1922) Renske (66332), s d Bedford Wietze 13th (S.A.S.B. 1276).

III. (£2.)—ARTHUR ALLEN, Chesterblade, Somerset, **Glen Bruce** (Vol. 20), born 28th January; s Glen Akirin (31035), d Glen Brenda (82138), s d Kingswood Ynteseries (14531).

R.—Capt. F. E. STOBART, Abingworth, Pulborough, Sussex, **Abingworth Chief**, born 25th August; s Terling Matador (31987), d Abingworth Countess (111976), s d Compton Admiral Beatty (25273).

H.C.—ALFRED AUSTIN, Newton House, Sturminster Marshall, **Holyport Adema**, born 6th February, bred by H. M. Martineau, Holyport, Maidenhead; s Holyport Jokersar Series (P.I. 32939), d Dennistown Viola (38272), s d Corselar Adema (6119).—Sir ERNEST SALTER WILLS, Bart., Littlecote, Hungerford, Wilts, **Hales Burelma 2nd** (P.I.), born 30th January, bred by Ernest B. Hall, Hales, Market Drayton, Salop; s Hache Buringa (P.I.), d Hales Trethelma 2nd (P.I.), s d Dunninald Kurrijpoh (P.I.).

Silver Medal for the best Cow or Heifer in the British Friesian Classes.

I.—J. R. UPSON, **Moulsoe Elsie 2nd.**

R.—A. ALLEN, **Glen Wallaby.**

Silver Medal for the best Bull in the British Friesian Classes

I.—G. GEE, **Douneside Marcellus.**

R.—J. R. UPSON, **Saracens Meibloem.**

ABERDEEN-ANGUS.

(£10 towards the Prizes in these Classes were given by the English Aberdeen-Angus Cattle Association).

CLASS 111.—*Aberdeen-Angus Cow or Heifer, in-Milk, calved before 1st December, 1928.* [4 entries.]

I. (£10).—E. KEITH BROOKS, Coombe Farm, Thatcham, Berks, **Miss Beningbrough** (86684), born 27th January, 1928, bred by W. T. Elgey, Bell Farm, Beningbrough, York; s Geordie of Goodwood (48285), d Betty Maria (61655), s d Emperor of Harviestoun (39401). (Last calf 1st January, 1931).

II. (£5).—DEBENHAM & TORY, Bladen Farms, Briantspuddle, Dorset, **Ermine 3rd of Ruthven** (84448), born 2nd February, 1927, bred by D. Macrae, Ruthven, Kingussie, Inverness-shire; s Premier of Candacraig (55561), d Ernie of Ruthven (56737), s d Earl Echo of Ballindalloch (26706). (Last calf 27th November, 1930).

CLASS 112.—*Aberdeen-Angus Heifer, calved on or between 1st December, 1928, and 30th November, 1929.* [4 entries.]

I. (£10).—JOHN J. CRIDLAN, Maisemore Park, Gloucester, **Lady Surpassing**, born 7th December, 1928, bred by E. G. Wheler Galton, Claverdon Leys, Warwick; s Black Erne of Bleaton (56215), d Lady Surprise (61388), s d Black Elm (37266).

II. (£5).—Col. RAYMOND FFENNELL, Wytham Estate, Oxford, **Elva's Eau** (91542), born 13th December, 1928, bred by C. G. Robertson, Tullochgribban; s Jazer Eric (62039), d Elva of Tullochgribban (61039), s d Prince Blue Blood of Ballindalloch (29807).

III. (£2).—DEBENHAM & TORY, Bladen Farms, Briantspuddle, Dorset, **Griselda 2nd of Bladen** (89854), born 11th March, 1929, bred by Sir Ernest Debenham, Bart., Bladen Farms, Briantspuddle, Dorset; s Boropin of Candacraig (63511), d Griselda of Mungo's Walls (82267), s d Patron of Bywell (55449).

CLASS 113.—*Aberdeen-Angus Heifer, calved on or after 1st December, 1929.* [4 entries.]

I. (£10).—E. KEITH BROOKS, Coombe Farm, Thatcham, Berks, **Blackeyes of Thatcham** (92716), born 15th December, 1929; s Elver of Ettington (64075), d Blackeyes 8th of Maisemore (83427), s d Proud Eric of Maisemore (57939).

II. (£5).—JOHN JOSEPH CRIDLAN, Maisemore Park, Gloucester, **Jilt of Maisemore 22nd**, born 8th December, 1929; s Proud Eric of Maisemore (57939), d Jilt 12th of Maisemore (80743), s d Blacksmith of Maisemore (49684).

III. (£2).—Col RAYMOND FFENNELL, Wytham Estate, Oxford, **Wytham** (B.P.), born 24th January, 1930; s Black Brutus of Llantwit (63386), d Pride of Witley 5th (84305), s d Mulben Peerless (51074).

CLASS 114.—*Aberdeen-Angus Bull, calved before 1st December, 1929.* [1 entry.]

I. (£10.)—Col. RAYMOND FFENNELL, Wytham Estate, Oxford, **Black Brutus of Llantwit** (63386), born 21st January, 1927, bred by F. H. Turnbull, Llantwit; s Pranksome (53401), d Black Bara (70968), s d Evendale of Bleaton (48139).

CLASS 115.—*Aberdeen-Angus Bull, calved on or after 1st December, 1929.* [2 entries.]

I. (£10.)—JOHN J. CRIDLAN, Maisemore Park, Gloucester, **Premier of Maisemore**, born 13th January, 1930; s Proud Eric of Maisemore (57939), d Pride of Maisemore 21st (69517), s d Evergilt of Maisemore (45868).

II. (£5.)—Col. RAYMOND FFENNELL, Wytham Estate, Oxford, **Wytham Black Boy**, born 11th January, 1930; s Black Brutus of Llantwit (63386), d Witley Bracelet (84309), s d Kodak of Gallovie (48575).

CHAMPION PRIZES.

GIVEN BY THE ABERDEEN-ANGUS CATTLE SOCIETY.

A Silver Medal for the best Animal in the Aberdeen-Angus Classes.

I.—E. K. BROOKS, **Miss Beningbrough.**

GIVEN BY THE ENGLISH ABERDEEN-ANGUS CATTLE ASSOCIATION.

A Silver Medal for the best Animal of opposite sex to that of the Champion.

I.—Col. R. FFENNELL, **Black Brutus of Llantwit.**

A Silver Medal for the best Exhibit bred in England or Wales.

I.—E. K. BROOKS, **Miss Beningbrough.**

RED POLL.

(£20 towards the Prizes in these Classes and the Silver Medals were given by the Red Poll Cattle Society).

CLASS 116.—*Red Poll Cow or Heifer, in-Milk, calved before 1929.* [4 entries.]

I. (£10.)—MRS. M. M. FITZGERALD, Marsden Manor, Cirencester, Glos., **Marsden Mimulus** (37998), born 4th July, 1926; s Marsden Mars (13501), d Marsden Musk Rose (32899), s d Antwick Russett King (12203). (Last calf 21st February, 1931).

II. (£5.)—THE EARL OF RADNOR, Longford Castle, Salisbury, **Longford Bloom**, born 23rd January, 1924; s Sudbourne Choice Goods (H.B. 12455), d Dallinghoo Blossom 3rd (H.B. 28654), s d Gressenhall Taurus (H.B. 10722). (Last calf 7th April, 1931).

CLASS 117. — *Red Poll Heifer, calved in 1929.* [5 entries.]

I. (£10.)—LT.-COL. C. HEYWORTH-SAVAGE, Bradwell Grove, Burford, Oxford, **Bradwell Rosemary** (42828), born 29th May; s Whiteway William (14721), d Bradwell Red Rose (35311), s d Combend Red Rover (12972).

II. (£5.)—VISCOUNT TREDEGAR, Tredegar Park, Newport, Mon., **Tredegar Guelderox**, born 26th March; s Tredegar Dauphin (14344), d Tredegar Blush Rose (34946), s d Ferry Moor Flycatcher (12604).

III. (£2.) VISCOUNT TREDEGAR, **Tredegar Guitlar**, born 11th March; s Tredegar Dauphin (14344), d Tredegar Banjo (34938), s d Marham Armistice (11410).

R.—J. N. KENDALL, Brimpsfield Park, Glos., **Brimpsfield Bounce**, born 15th June; s Seven Springs Bumble Bee (15922), d Whiteway Windflower (38676), s d Whiteway Witness (13982).

H.C.—MRS. M. M. FITZGERALD, Marsden Manor, Cirencester, Glos., **Marsden Minion** (43803), born 5th June; s Marsden Mintine (13861), d Saham Future Fear (31629), s d Saham Rubaiyat (11767).

CLASS 118.—*Red Poll Heifer, calved in 1930.* [10 entries.]

I. (£10.)—VISCOUNT TREDEGAR, Tredegar Park, Newport, Mon., **Tredegar Hallmark**, born 23rd February; s Necton Gloucester (11423), d Priory Lass (30309), s d Polstead Kenneth (11755).

II. (£5.)—MRS. C. N. DYER, Hyders, Crawley, Sussex, **Hyders Ashberry One**, born 20th January; s Ashmoor Alert (13284), d Hardwick Ashberry 3rd (39458), s d Ashmoor Alert (13284).

III. (£2.)—LT.-COL. SIR MERRIK R. BURRELL, Bart., C.B.E., Knepp Castle, West Grinstead, Horsham, Sussex, **Knepp Ida 6th**, born 14th January; s Knepp Insurance (13832), d Knepp Ida 5th (37837), s d Gressenhall Marquis (11342).

R. MRS. M. M. FITZGERALD, Marsden Manor, Cirencester, Glos., **Marsden Myra** (Vol. 48), born 7th February; s Marsden Monopol (14622), d Marsden Miramar (34448), s d Antwick Minotaur (12200).

V.H.C.—HON. CLIVE PEARSON, Parham, Pulborough, Sussex, **Parham Rosa**, born 17th May; s Basildon Rodney (13295), d Basildon Royal Rosie (30733), s d Sudborne Miner (11492).

H.C.—HENRY TAYLOR, Lower Tundridge, Suckley, Worcester, **Tundridge Marguerite**, born 4th January; s Byley Hero (14060), d Northwick Marguerite 2nd (34555), s d Boughton Master.

CLASS 119.—*Red Poll Bull, calved in or before 1929.* [2 entries.]

I. (£10.)—J. N. KENDALL, Brimpsfield Park, Glos., **Brimpsfield Barrister** (14456), born 6th February, 1927; s Necton Minister (13880), d Sperle Rapacity (34802), s d Sudbourne Sandy (12460).

II. (£5.)—ROBERT MOSTYN WILLIAMS, Manor Farm, Horfield, Bristol, **Longford Conductor**, born 13th May, 1929, bred by the Earl of Radnor, Longford Castle, Salisbury; s Longford Gander (14595), d Longford Symphony (32828), s d Sudbourne Choice Goods (12455).

CLASS 120.—*Red Poll Bull, calved in 1930.* [7 entries.]

I. (£10.)—MRS. M. M. FITZGERALD, Marsden Manor, Cirencester, Glos., **Marsden Monkeyflower**, born 2nd February; s Marsden Monopol (14622), d Marsden Mimulus (37998), s d Marsden Mars (13501).

II. (£5.)—LT.-COL. C. HEYWORTH-SAVAGE, Bradwell Grove, Burford, Oxford, **Bradwell Dictator**, born 5th January; s Whiteway William (14721), d Bradwell Duchess (35310), s d Bredfield Nathan (12945).

III. (£2.)—VISCOUNT TREDEGAR, Tredegar Park, Newport, Mon., **Tredegar Hansome**, born 10th January; s Titteshall Abbott (14699), d Rhiwderin Rose (36399), s d Colworth Bandit (12559).

R.—MRS. C. N. DYER, Hyders, Crawley, Sussex, **Hyders Alert One**, born 24th March; s Ashmoor Alert (13284), d Kirton Marion (34267), s d Sudbourne Sam (12848).

V.H.C.—J. N. KENDALL, Brimpsfield Park, Glos., **Brimpsfield Baronet**, born 12th March; s Seven Springs Bumble Bee (13922), d Whiteway Windrush (38678), s d Framlingham Frish (11955).

H.C.—HON. CLIVE PEARSON, Parham, Pulborough, Sussex, **Parham Romulus**, born 4th April; s Basildon Rodney (13295), d Grundisburgh Bird (35740), s d Bredfield Romulus 2nd (12947).

C.—LT.-COL. SIR MERRIK R. BURRELL, Bart., C.B.E., Knepp Castle, West Grinstead, Horsham, Sussex, **Knepp First Lord**, born 26th June; s Knepp Senator (13836), d Sharndon Primula (36479), s d Colworth Primrose League (12564).

Silver Medal for the Best Cow or Heifer in the Red Poll Classes.

I.—MRS. M. M. FITZGERALD, **Marsden Mimulus**.

R.—VISCOUNT TREDEGAR, **Tredegar Hallmark**.

Silver Medal for the Best Bull in the Red Poll Classes.

I.—J. N. KENDALL, **Brimpsfield Barrister**.

R.—MRS. M. M. FITZGERALD, **Marsden Monkeyflower**.

AYRSHIRE.

(£20 towards the Prizes in these Classes and the Gold Medal were given by the English Committee of the Ayrshire Cattle Herd Book Society, and animals entered must have been registered or eligible for registration in the Society's Herd Book).

CLASS 121.—*Ayrshire Cow, in-Milk, calved before September 1, 1927.*
[4 entries.]

I. (£10.)—W. B. DRONSFIELD, Wilmcote Hill, Stratford-on-Avon, brown and white, **High Tarbeg Dot 2nd** (98975), born 14th March, 1924, bred by J. A. Watson; s Meckle Kilmonglow (23499), d High Tarbeg Dot (60708), s d High Tarbeg Kitchener (15645).

II. (£5.)—R. B. TAYLOR & SONS, Sockhill, near Yeovil, white with brown marks on head, **Waterside Kirsty**, born December, 1924, bred by J. Young, **Waterside Mains**, Thornhill, N.B.; s Killoch Editor (21481), d Waterside Flora (68236). (Last calf 25th March, 1931).

III. (£2.)—H. J. CLARK, Oldner House, Chipping Norton, Oxon, mostly white brown spots, **Oldner Amoria**, born 29th March, 1927; s Ickham Mascot (24352), d Moorside Amoria (90902), s d Birnie Knowe Snowball (17570). (Last calf 17th February, 1931).

CLASS 122.—*Ayrshire Heifer, in-Milk, calved on or after September, 1927.* [5 entries.]

I. (£10.)—W. B. DRONSFIELD, Wilmcote Hill, Stratford-on-Avon, mostly white, **Poulton Nancy**, born 21st September, 1927, bred by A. Ruterford; s Relief Front Line (26883), d Pinnacle Nancy (2582), s d Midtown Lucky Boy (21453).

II. (£5.)—H. J. CLARK, Oldner House, Chipping Norton, Oxon, brown and white, **Oldner Trim 2nd** (22786), born 8th October, 1928; s Carnell Specialist (26471), d Baryerrock Trim (511), s d Baryerrock Jamie (24818).

III. (£2.)—H. J. CLARK, brown and white, **Oldner Canty**, born 4th April, 1928; s Ickham Mascot (24352), d Clendrie Canty 2nd (94146), s d Hobsland Fairplay (21126).

H.C.—NATIONAL SOCIETY FOR EPILEPTICS, Chalfont Colony, Bucks, white and little brown, **Chalfont Topsy** (28124), born 12th December, 1928; s Mackays Foundation Stone (27899), d Bruchag Topsy 16th (4320), s d Nether-ton Bona Fide (19557).

C.—NATIONAL SOCIETY FOR EPILEPTICS, brown and white, **Chalfont Peeress** (28121), born 16th January, 1929; s Mackays Foundation Stone (27899), d Eglinton Peeress (7103), s d Eglinton Mains Snow King (19734).

CLASS 123.—*Ayrshire Heifer, calved on or after September 1, 1929.* [5 entries.]

I. (£10.)—H. J. CLARK, Oldner House, Chipping Norton, Oxon, brown and white, **Oldner Faith 3rd**, born 6th October, 1929; s Carnell Specialist (26471), d Oldner Faith (8947), s d Ickham Mascot (24352).

II. (£5.)—NATIONAL SOCIETY FOR EPILEPTICS, Chalfont Colony, Bucks, white with little brown splashes, **Chalfont Heather 2nd** (29961), born 7th November, 1929; s Craigraploch Crusader (27683), d Rainton Heather 12th (3201), s d Carleton Guardsman (18946).

III. (£2.)—NATIONAL SOCIETY FOR EPILEPTICS, white, **Chalfont Carrie Vanora** (Vol. 54, 29955), born 6th January, 1930; s Craigraploch Crusader (27683), d Bruchag Vanora 2nd (4321), s d Nether-ton Bona Fide (19557).

H.C.—W. B. DRONSFIELD, Wilmcote Hill, Stratford-on-Avon, fawn and white, **Wilmcote Annabelle**, born 5th October, 1929; s Bruchag Benefactor (26136), d Leath Annabella (5157), s d Stonehouse Fasinator (24169).

CLASS 124.—*Ayrshire Bull, calved on or after September 1, 1929.* [1 entry.]

I. (£10.)—NATIONAL SOCIETY FOR EPILEPTICS, Chalfont Colony, Bucks, white, brown cheeks, **Auchenbrain Revelation** (30408), born 1st February, 1930, bred by David Wallace, Auchenbrain, Mauchline, Ayrshire; s Lyonston Douglas (25768), d Auchenbrain White Rose 3rd (76748), s d Auchenbrain British Chief (18453).

Gold Medal for the Best Animal in the Ayrshire Classes.

I.—W. B. DRONSFIELD, **High Tarteg Dot 2nd.**

R.—W. B. DRONSFIELD, **Poulton Nancy.**

BLUE ALBION.

(£17 towards the Prizes in these Classes were given by the Blue Albion Cattle Society).

CLASS 125.—*Blue Albion Cow or Heifer, in-Milk, calved in or before 1928.* [3 entries.]

I. (£10.)—HENRY MATTHEWS, Winterbourne, Bristol, blue, **Flossie of Winterbourne** (S.R. 336), born 1925. (Last calf July, 1930).

II. (£5.)—E. F. POTTER, Idover Demesne, Little Somerford, near Chippenham, blue roan, **Seagry Pretty Girl 2nd**, born 28th January, 1926, bred by E. & D. Potter, Idover Demesne, Little Somerford, near Chippenham; s Seagry General (745), d Seagry Pretty Girl (6892). (Last calf 15th March, 1931).

H.C.—T. H. SWIRE & SONS, The Mount and Bellaport Farms, Norton-in-Hales, Market Drayton, blue and white, **Mount Sweetheart 2nd**, born 11th September, 1926; s Fernilee Fearless, d Mount Sweetheart. (Last calf, 2nd October, 1930).

CLASS 126.—*Blue Albion Heifer, calved in 1929 or 1930.* [3 entries.]

I. (£10.)—HENRY MATTHEWS, Winterbourne, Bristol, blue, **Farnborough Buttercup**, born 16th October, 1929, bred by R.H.J. Holbeck, The Grange, Banbury; s Pike Major (1329), d Snowflake of Farnborough (375 S.R.), s d Minglow Referee (657).

II. (£5.)—T. H. SWIRE & SONS, The Mount and Bellaport Farms, Norton-in-Hales, Market Drayton, light blue, **Mount Ethel 2nd**, born 8th January, 1929; s Mount Goalkeeper, d Blackmore Ethel.

H.C.—E. F. POTTER, Idover Demesne, Little Somerford, near Chippenham, blue roan and little white, **Seagry Amy** (117x194), born 21st January, 1930, bred by E. & D. Potter, Idover Demesne, Little Somerford, nr. Chippenham; s Musical Man (1377), d Seagry Emma (10636), s d Stanton Earl of Derby (115)

CLASS 127.—*Blue Albion Bull, any age.* [4 entries.]

I. (£10.)—HENRY MATTHEWS, Winterbourne, Bristol, blue, **Broomhill Threshold** (499), born 31st March, 1923, bred by Major Gerald Johnson, D.S.O., Foston, Derbyshire; s Mountain King (81), d Broomhill Amber (1072).

II. (£5.)—T. H. SWIRE & SONS, The Mount and Bellaport Farms, Norton-in-Hales, Market Drayton, blue roan, **Mount Fearless**, born 16th April, 1927; s Fernilee Fearless, d Mount Pollie.

III. (£2.)—HENRY MATTHEWS, blue, **Winterbourne Threshold** (82x75), born January, 1930; s Broomhill Threshold (499), d Winterbourne Lily 2nd (12510).

H.C.—E. F. POTTER, Idover Demesne, Little Somerford, near Chippenham, blue roan and white, **Seagry Wireless** (117x197), born 20th September, 1930, bred by E. & D. Potter, Idover Demesne, Little Somerford, nr. Chippenham; s Musical Man (1377), d Seagry Sybil (12354), s d Seagry General (745).

JERSEY.

(£10 towards the Prizes in these Classes were given by the English Jersey Cattle Society).

CLASS 128.—*Jersey Cow, in-Milk, calved before 1928.* [9 entries.]

I. (£10.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, broken, **Dawn Child** (9131), born 10th January, 1927, bred by J. P. Dreland, Trinity ; s Signal of Oaklands (5979), d Aylmer Brunette (27627), s d Aylmer (5592).

II. (£5.)—Mrs. EVELYN, Wotton House, Dorking, whole, **Fancy Edna** (7834), born 17th July, 1926, bred by C. Quenault, Jersey ; s The Mighty Owl (6108), d Fair Edna (24389), s d Fairy General (5358).

III. (£2.)—Mrs. LIONEL CORBETT, Hockley House, Alresford, Hants, whole light fawn, **Double Dew 2nd**, born 6th May, 1924, bred by J. E. Barette, Jersey ; s Hussys Sultan, d Double Dew. (Last calf 22nd March, 1931).

R.—Sir G. STANLEY WHITE, Bart., Hollywood Tower, Westbury-on-Trym, near Bristol, broken, **Dawn of Hollywood**, born 26th April, 1924 ; s Willonyx Ruler, d Peace of Hollywood, s d Pepper.

V.H.C.—Sir HAROLD MACKINTOSH, Conyngham Hall, Knaresborough, Yorks, whole, **Penshurst Cleopatra** (Vol. 37, page 68), born 14th April, 1925, bred by George Cross, Penshurst ; s Pen-hurst Yellow Prince (14412), d Eastern Queen Laxton (Vol. 31, page 268), s d Dame's Gamboge (12264).

CLASS 129.—*Jersey Cow or Heifer, in-Milk, calved in 1928.* [4 entries.]

I. (£10.)—Sir HAROLD MACKINTOSH, Conyngham Hall, Knaresborough, Yorks, whole, **Conyngham's Snowdrop**, born 1st February ; s St. Louis (14778), d Lydia (Vol. 34, page 314), s d Cowdray Dairyman (13520). (Last calf 19th March, 1931).

II. (£5.) The Lady VIOLET HENDERSON, Buscot Park, Faringdon, Berks, whole, **Lady Emille**, born 21st January ; s Arkona's Duke (15252), d Emmeline (7793), s d Sybil's Gamboge 8th (15121).

III. (£2.)—LADY HERVEY-BATHURST, Somborne Park, King's Somborne, Hants, nearly whole, **Blonde's Penelope**, born 15th October ; s Sociable's Lad (16084), d Maiden Blonde 2nd (3641), s d Eastwood Ming (12353). (Last calf 2nd March, 1931).

R.—Mrs. E. K. STAINES, Hook Farm, Leigh, Reigate, Surrey, whole, **Hook Adelphi**, born 17th March ; s Beau Brummel (15585), d Adelphi (imp. 259), s d War Bread (13785). (Last calf 15th March, 1931).

CLASS 130.—*Jersey Heifer, in-Milk, calved in or since 1929.* [11 entries.]

I. (£10.)—The Lady VIOLET HENDERSON, Buscot Park, Faringdon, Berks, whole, **Princess Mary**, born 30th May, 1929 ; s Fiery Aristocrat (16280), d Mary (3682), s d Danbury Majestic (13901).

II. (£5.)—H. LEYBORNE POPHAM, Hunstrete House, Pensford, near Bristol, broken, **Hunstrete Empress May**, born 11th May, 1929 ; s Napoleonette's You'll Do, d Hunstrete Mantle's Springtime, s d Hunstrete Doreen's Mantle.

III. (£2).—Mrs. EVELYN, Wotton House, Dorking, whole, **Wotton Dancer**, born 24th February, 1929; s Henbury Sunrise (15873), d Wotton Salome (Vol. 37, page 496), s d Henbury Moonlight (13301). (Last calf 22nd March, 1931).

R.—JOHN PIERPONT MORGAN, Estate Office, Wall Hall, Watford, broken **Aldenhams Tidy Mabel**, born 10th February, 1929; s Aldenhams Grey King (15152), d Tidy Mabel, s d Mabel's Gamboge (14019).

V.H.C.—Sir JOHN B. LLOYD, Foxbury, Stone Street, near Sevenoaks, Kent, whole fawn, **New Year's Sally**, born 1st January, 1929; s Wonderful Standard (16207), d Sally Serene (8504), s d The Sweep (14144). (Last calf 10th March, 1931).—Mrs. E. K. STAINES, Hook Farm, Leigh, near Reigate, Surrey, whole, **Hook Ruby**, born 1st January, 1929; s Beau Brummel (15585), d Roundway Ruby (Vol. 37, page 452), s d Roundway Pioneer (14774).—Sir G. STANLEY WHITE, Bart., Hollywood Tower, near Bristol, broken, **Rambler of Hollywood**, born 6th May, 1929; s Shamrock of Hollywood, d Rock Rose of Hollywood, s d Henbury Limelight.

CLASS 131.—*Jersey Heifer, calved in 1930.* [15 entries.]

I. (£10).—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, broken, **Shawlands Mytilda's Jewel**, born 31st March; s Mytilda's Beau 3rd (16468), d Bluff Jewel (imp. 35429), s d Dreaming Sultan (5880).

II. (£5).—Hon. Mrs. ESME SMYTH, Ashton Court, Long Ashton, Bristol, whole, **Doonechild**, born 7th June; s Origas Lad (16631), d Lorna (9657), s d Majestic (15885).

III. (£2).—Sir HAROLD MACKINTOSH, Conyngham Hall, Knaresborough, Yorks, whole, **Conyngham's Beechnut Belle**, born 5th May; s North Stoke Beechnut (15728), d Belle des Noyers (imp. 5960), s d Alymer Beau (14528).

R.—The LADY VIOLET HENDERSON, Buscot Park, Faringdon, Berks, whole, **Lady Inverclyde**, born 21st May; s Fiery Aristocrat (16280), d June's Molly, s d June's Sybil Oxford (16011).

V.H.C.—Mrs. EVELYN, Wotton House, Dorking, whole, **Wotton Bella Donna**, born 25th June, 1930; s Bright Eyes Sweep (16529), d W. Desert Morn, s d Henbury Sunrise (15873).—Mrs. E. K. STAINES, Hook Farm, Leigh, near Reigate, Surrey, whole, **Hook Starlight**, born 5th May; s Wotton Camseen (Vol. 40, page 83), d Dover's Royal Moonbeam (37122), s d Royal Kingdom (14446).

H.C.—Miss R. B. BABCOCK, whole, **Shawlands Betsy**, born 19th May; s Mars-ton Daybreak (Vol. 40, page 241), d Betty (7439), s d LaChasse Stook (15195).—The LADY VIOLET HENDERSON, broken, **Lovely Lady**, born 16th March; s Fiery Aristocrat (16280), d Una, s d Nimrod's Lion (16043).

CLASS 132.—*Jersey Bull, calved before 1929.* [4 entries.]

I. (£10).—H. STEPHEN-FOX, Sharelands, Blackboys, Sussex, whole, **Pioneer Don Silver** (16059), born 30th June, 1927, bred by Viscount Cowdray, Cowdray Park, Middhurst, Sussex; s Grombridge Don Silver (Vol. 37, page 140), d Pioneers Lady (Vol. 34, page 407), s d Pioneers Noble (12416).

II. (£5).—Capt. and Mrs. F. B. IMBERT-TERRY, Blue Hayes, Broadclyst, Devon, whole-dash, **Spring V.C.** (16482), born 27th June, 1928, bred by C. W. Hough, Springhouse Farms, Theydon Bois; s Lilac's Golden Cid (15521), d Origas Velve (3821), s d Origas Oxford Raleigh (14720).

III. (£2.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, whole, **Marston Daybreak**, born 4th March, 1928, bred by W. Wilkins, Longmarston, Tring; s Signalman (15777), d Happy Midsummer Dream (33534), s d Bindle (14943).

R. Sir JOHN B. LLOYD, Foxbury, Stone Street, near Sevenoaks, Kent, whole brown, **La Pompe You'll Do** (16160), born 26th August, 1927, bred by J. O. Arthur, St. Mary's, Jersey; s Poppy's You'll Do (16060), d La Pompe Flash (3100), s d Flashlight (14993).

CLASS 133. — *Jersey Bull, calved in 1929.* [6 entries.]

I. (£10.)—Mrs. E. K. STAINES, Hook Farm, Leigh, near Reigate, Surrey, whole, **Orestons Benedict** (Vol. 41, page 300) (16629), born 26th February, bred by J. D. Botterill, Brown's Effingham, Surrey; s 'Id's Rayleigh (15838), d Racing Benedict 2nd (2474), s d Cowslips Pioneer (13226).

II. (£5.)—Mrs. EVELYN, Wotton House, Dorking, whole, **Wotton Sandpole**, born 24th May; s Wotton Maypole (16213), d Wotton Sandmaiden, s d Wotton Sandy (12814).

III. (£2.)—Hon. Mrs. ESME SMYTH, Ashton Court, Long Ashton, Bristol, whole, **Kingston Golden Sultan**, born 11th May, bred by E. A. Strauss, Kingston House, Kingston Bagpuise, Abingdon, Berks; s Kingston Irish Lad (Vol. 39, page 209), d Kingston Remembrance, s d Pilgrim Boy (15216).

R.—H. LEYBORNE POPHAM, Hunstrete House, Pensford, near Bristol, whole, **Hunstrete Volunteer's Emperor**, born 17th August; s Napoleonette's You'll Do, d Volunteer's Lassie, s d Jersey Volunteer.

CLASS 134.—*Jersey Bull, calved in 1930.* [7 entries.]

I. (£10.)—H. STEPHEN-FOX, Sharelands, Blackboys, Sussex, whole, **Sharelands Don Bradman**, born 4th May; s Pioneer Don Silver (16059), d Eastwood Lady Fayre (Vol. 37, page 232), s d The Slasher (14143).

II. (£5.)—Sir G. STANLEY WHITE, Bart., Hollywood Tower, Westbury-on-Trym, near Bristol, whole, **Forester of Hollywood**, born 14th April; s Hercules of Hollywood, d Freda of Hollywood, s d Pioneer Victory of Hollywood.

III. (£2.)—Mrs. EVELYN, Wotton House, Dorking, whole, **Wotton Heir**, born 18th July; s Wotton Airman 2nd (14502), d Lingen Lucky Connection, s d Lingen Calcutta Sweep.

R.—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, whole, **Shawlands Theresa's Oxford**, born 17th January; s Stevenage Double Oxford (1662), d Lady Theresa 2nd (6607), s d La Sente's Oxford Sultan (15198).

H.C.—Sir JOHN B. LLOYD, Foxbury, Stone Street, near Sevenoaks, Kent, whole fawn, **Foxbury Warrior**, born 18th February; s La Pompe You'll Do (16160), d Pretty Welcome (8416), s d Observer (13682). —H. LEYBORNE POPHAM, Hunstrete House, Pensford, near Bristol, broken, **Hunstrete Easter Hero**, born 11th July; s Napoleonette's You'll Do, d Easter Hussy 2nd, s d By Jingo.

GIVEN THROUGH THE ENGLISH JERSEY CATTLE SOCIETY BY MR. H. L. POPHAM.

The Hunstrete Perpetual Silver Challenge Cup for the best Cow or Heifer entered or eligible for entry in the E. J. Herd Book exhibited in the Jersey Classes by a Member of the E. J. C. Society.

I.—Miss R. B. BABCOCK, **Dawn Child.**

R.—LADY VIOLET HENDERSON, **Princess Mary.**

GUERNSEY.

(£20 towards the Prizes in these Classes were given by the English Guernsey Cattle Society)

CLASS 135. — *Guernsey Cow, in-Milk, calved before 1928.* [5 entries.]

I. (£10.) HAROLD JAMES PILBROW, Mapleton, Edenbridge, Kent, fawn and white, **Engen Gentle 4th** (21599), born 11th December, 1924, bred by S. Christopher, Engen Farm, Gwithian, Hayle; s Bladen Cinderella's Pride (4695), d Engen Gentle 3rd (17690), s d Engen Gay Boy 2nd (3696). (Last calf 6th February, 1931).

II. (£5.) — WILLIAM PENROSE, Trequean, Breage, Helston, Cornwall, fawn and white, **Trequean Nellie 20th** (27594), born 3rd August, 1927; s Trewavas Prince (6194), d Trequean Nellie 13th (20666), s d Carrallack King.

III. (£2.) — CAPT. L. R. WAND, Bradley Court, Chieveley, Newbury, fawn little white, **Abbot's Miss Maggie**, born 30th June, 1925, bred by Rev. F. de Paravicini, Abbots Ann, Andover, Hants; s Catford Bon Espoir (5565), d Abbots Miss Madge (13220), s d Lynchmere Charmante 4th (3177). (Last calf 27th March, 1931).

CLASS 136. — *Guernsey Heifer, in-Milk, calved in 1928.* [11 entries.]

I. (£10.) — W. DUNKELS, Fernhill Park, Windsor Forest, Berks, fawn and white, **Fernhill Rose 2nd** (28077), born 28th March; s Hindhead Robert 6th (5847), d Fernhill Rose (18813), s d Murrell Desmond (4263).

II. (£5.) W. DUNKELS, dark fawn and white, **Fernhill Starlight 3rd** (28078), born 17th April; s Rose Lad of Goodnestone (3163), d Fernhill Starlight (20224), s d Murrell Desmond (4263).

III. (£2.) — WILLIAM PENROSE, Trequean, Breage, Helston, Cornwall, fawn and white, **Trequean Reality 13th** (28219), born 27th March; s Elfordleigh Hammil 3rd (5783), d Trequean Reality 10th (22206), s d Trewithen Neptune.

R. ERIC H. ROSE, Leweston Manor, Sherborne, Dorset, fawn, **May of St. Catherine**, born 17th August, bred by P. C. Robilliard, St. Catherine, St. Peter's Port, Guernsey; s Dimples Boy of Cornus Farm (4895), d Pulias Rosy May 3rd (25427), s d Primroses Butterfat (4535). (Last calf 13th March, 1931).

V.H.C. — MRS. J. SUTCLIFFE PYMAN, Norsebury, Sutton Scotney, Hants, fawn, little white, **Norsebury Venice** (29374), born 11th October; s Poundstocks Sequel (5279), d Venice of Hillside (28392), s d Bobby of Les Salines (4929).

H.C. — SIR LOUIS B. BARON, Bart., Holmbury House, Holmbury St. Mary, near Dorking, Surrey, **Holmbury Myrtle 1st**, (28882), born 3rd July; s Rose Lad of Goodnestone 11th (6303), d Cantley May (24349), s d Tregonning Lucky Boy (4966). (Last calf 25th March, 1931).

CLASS 137. — *Guernsey Heifer, calved in 1929.* [8 entries.]

I. (£10.) — ERIC H. ROSE, Leweston Manor, Sherborne, Dorset, fawn and white, **Leweston Gladness** (E.G.H.B. 30154), born 2nd January; s Elys Fannies Lad (6576), d Donnington Gladness 21st (17604), s d Donnington Noble 20th (3897). (Last calf 16th March, 1931).

II. (£5.) — ERIC H. ROSE, fawn and white, **Leweston Princess Mary 3rd** (30546), born 14th March; s Elys Fannies Lad (6576), d Whytham Princess Mary 2nd (25261), s d Eldfordleigh Hammill (4185).

III. (£2.)—Sir LOUIS B. BARON, Bart., Holmbury House, Holmbury St. Mary, near Dorking, Surrey, **Holmbury Bertha**, born 4th March; s Passee Dimple Boy (P.S. 5404), d Rose of L'Islet (P.S. 27705, A.R.), s d Valentines Golden Noble 3rd (P.S. 5060). (Last calf 21st March, 1931).

R.—Mrs. J. SUTCLIFFE PYMAN, Norsebury, Sutton Scotney, Hants, fawn and white, **Norsebury Buttercup 2nd** (30321), born 11th February; s Sequels Lodestar 2nd (4932), d Buttercup 2nd of North View (23628), s d Arthurs Poundstock of the Isles (3673).

CLASS 138.—Guernsey Heifer, calved in 1930. [18 entries.]

I. (£10.)—EDWARD GERRISH, Carrallack House, St. Just S.O., Cornwall, fawn and white, **Carrallack Programme 9th**, born 26th February; s Trengwainton Clover (5801), d Carrallack Programme 5th (24122), s d Ashfield Pearl King (5164).

II. (£5.) W. DUNKELS, Fernhill Park, Windsor Forest, Berks, fawn and white, **Fernhill Fleur 3rd** (32836), born 7th March; s Hindhead Robert 6th (5847), d Downe Fleur of Vimera (14281), s d Valentines Honour of the Passee (3826).

III. (£2.)—Mrs. J. SUTCLIFFE PYMAN, Norsebury, Sutton Scotney, Hants, fawn and white, **Norsebury Buttercup 3rd** (32775), born 24th January; s Norsebury Noel (6875), d Buttercup 2nd of North View (23628), s d Arthurs Poundstock of the Isles (3673).

R.—W. ROACH, Trewidden Farm, Penzance, lemon and white, **Trewidden Rose 5th** (33328), born 20th May; s Poltimore Trojan (5515), d Trewidden Rose 4th (25229).

V.H.C.—HAROLD JAMES PILBROW, Mapleton, Edenbridge, fawn and white, **Mapleton Princess Rose** (32926), born 26th March; s Mapleton Amazement (7178), d Hawes Farm Rose 2nd, s d Charmantes Victor.

H.C.—WILLIAM PENROSE, Trequean, Breage, Helston, Cornwall, fawn and white, **Trequean Jeanette 20th** (32672), born 5th February; s Trequean Dairy King (6880), d Trequean Jeanette 15th (24700), s d Venton East Emperor.

C.—Hon. GEOFFREY LAWRENCE, K.C., D.S.O., Hill Farm, Oak-ey, Swindon, fawn and white, **Flintham Free Breeze 2nd** (33104), born 21st April; s Robin Hood of Goodnestone (6605), d Flintham Free Breeze (24871), s d Freedom of Bel Air (P.S. 295).

CLASS 139.—Guernsey Bull, calved before 1929. [8 entries.]

I. (£10.) W. ROACH, Trewidden Farm, Penzance, lemon and white, **Halwyn Majesty** (6372), born 27th April, 1926; s Trewidden Magnet, d Gweek May Girl.

II. (£5.)—Sir GORDON LEY, Bart., Furze Down, King's Somborne, Hants, fawn and white, **Fernhill Rose Lad**, born 26th June, 1926, bred by W. Dunkels, Windsor; s Rose Lad of Goodnestone, d Downe Fleur of Vimera, s d Valentine's Honour of the Passee.

III. (£2.)—LORD POLTIMORE, Court Hall, North Molton, N. Devon, fawn and white, **Poltimore Royal Fancy** (6236), born 25th January, 1926; s Royal of Beaulieu (4922, A.R. 164), d Lily's Fancy of Primrose Farm (19233, A.R. 111 B), s d Queen's Fancy (4913, A.R. 13).

R.—Capt. W. J. PEARCE, Willoughby House, Rugby, fawn and white, **Fernhill Rose Lad 3rd**, born 20th May, 1927, bred by Walter Dunkels, Windsor Great Park; s Rose Lad of Goodnestone (3163), d Downe Fleur of Vimera (14281), s d Valentine's Honour of the Passee (3826).

CLASS 140.—*Guernsey Bull, calved in 1929.* [10 entries.]

I. (£10.)—W. DUNKELS, Fernhill Park, Windsor Forest, Berks, fawn and white, **Fernhill Robert 5th** (7795), born 28th April; s Hindhead Robert 6th (5847), d Downe Fleur of Vimiera (14281), s d Valentines Honour of the Passee (3826).

II. (£5.)—ERIC H. ROSE, Leweston Manor, Sherborne, Dorset, **Leweston Rose Lad** (7790), born 29th April; s Fernhill Rose Lad 2nd (6799), d Rosey of Goodnestone 11th (16953), s d Slogan de Bon Espoir (4317).

III. (£2.)—LORD POLTIMORE, Court Hall, North Molton, N. Devon, fawn and white, **Candie's Gay Lad** (8356), born 20th July, bred by G. de Garis, Candie, Castel, Guernsey; s Gay Lad of the Boiellon (P.S. 5319), d Morwena du Bas Sejour (P.S. 14415, A.R. 795), s d Governor 2nd of Myrtle Place (P.S. 2748, A. R. 33).

R.—W. ROACH, Trewidden Farm, Penzance, fawn and white, **Trewidden Manx Man** (7807), born 9th May; s Poltimore Trojan, d Trewidden Favourite 3rd.

CLASS 141.—*Guernsey Bull, calved in 1930.* [8 entries.]

I. (£10.)—REGINALD CHARLES VAUGHAN, Bushbury, Blackboys, Sussex, fawn and white, **Bushbury Surprise**, born 25th February; s Elfordleigh Dandy 2nd, d Hornblotton Molly (23449).

II. (£5.)—Capt. A. HAROLD STOCKER, The Stocklands Herd, North Lands, Chichester, fawn and some white, **Stocklands Joyous**, born 11th January; s Stocklands Excellency (6413), d Stocklands Gladstone (19625), s d Clanville Bullet (3480).

III. (£2.)—W. ROACH, Trewidden Farm, Penzance, fawn and white, **Trewidden Calender** (8337), born 3rd May; s Trengwainton Blaze, d Trewidden Favourite 3rd.

R.—Capt. W. J. PEARCE, Willoughby House, Rugby, fawn and white, **Rosey's Slogan 5th of Goodnestone**, born 9th April, bred by Lord Fitzwalter, Goodnestone Park, Canterbury; s Sequel's Slogan 2nd (4311), d Rosey of Goodnestone 18th (19866), s d Rose Lad of Goodnestone (3163).

DEXTER.

CLASS 142.—*Dexter Cow or Heifer, of any age, in-Milk, calved before 1929.* [6 entries.]

I. (£10.)—Mrs. C. M. L. CALVERT, Banwell Castle, Banwell, Somerset, black, **Banwell Opaline** (4056, Vol. 29), born 8th April, 1928; s Brentmoor Bracken (874, Vol. 25), d Hookstile Opaline (3478, Vol. 25), s d Fillongley Forester.

II. (£5.)—ALFRED J. CREED, Goldicote Hall, Stratford-on-Avon, black, **Wightwick Dolly 2nd** (4042), born 1st June, 1924, bred by Miss Dora Box, Lower Farm, Darlingscott, Glos.; s Wightwick Prince (899), d Wightwick Dolly (3205).

III. (£2.)—Mrs. C. M. L. CALVERT, black, **Barrow Bee 4th** (2824, Vol. 22), bred by Capt. Guy Gibbs; s Barrow Beau 3rd (622), d Barrow Bee 2nd (1826), s d Barrow Captain (393). (Last calf 19th January, 1931).

R.—Mrs. C. M. L. CALVERT, black, **Banwell Sal 2nd** (3915, Vol. 28), born 29th April, 1927; s Banwell Brat (814), d Attington Sal (3727, Vol. 27), s d Speldhurst Bellows (803).

H.C.—Mrs. LEATHAM, The Manor, Bagendon, Cirencester, black, **Bagendon Emerald 3rd**, born 12th January, 1922; s Bagendon Paying Guest, d Oakridge Emerald 4th, s d Oakridge Grandaddy. (Last calf 28th February, 1931).

CLASS 143.—*Dexter Heifer, not in-Milk, calved in 1929 or 1930.*
[4 entries.]

I. (£10.)—Mrs. C. M. L. CALVERT, Banwell Castle, Banwell, Somerset, red, **Banwell Opaline 2nd** (31), born 9th May, 1930; s Ratcliffe Goldsmith (976, Vol. 27), d Banwell Opaline (4056, Vol. 29) s d Brentmoor Bracken (876).

II. (£5.)—Mrs. BRIGHTRIC GEE, Curragheen, Chew Magna, near Bristol, red, **Chew Buntz**, born 23rd April, 1929; s Barrow Donald 2nd (997), d Chew Betsy, s d Barrow Duke 7th (909).

R.—Lieut.-Col. W. O. GIBBS, Barrow Court, Flax Bourton, Somerset, red, **Barrow Dora 16th**, born 15th July, 1929; s Philip of Burghelere, d Barrow Dora 6th, s d Oakridge Satrap.

CLASS 144. *Dexter Bull, any age.* [3 entries.]

I. (£10.)—Mrs. C. M. L. CALVERT, Banwell Castle, Banwell, Somerset, black, **Banwell Peter** (Vol. 30), born 1st July, 1929; s Banwell Breeze (993), Vol. 28), d Banwell Pansy (3914, Vol. 28), s d Banwell Brat (814).

II. (£5.)—Mrs. LEATHAM, The Manor, Bagendon, Cirencester, black, **Bagendon Trifle**, born 26th May, 1927; s Bagendon Emblem, d Bagendon Tortoiseshell 5th, s d Blue Gums.

R.—Mrs. BRIGHTRIC GEE, Curragheen, Chew Magna, black, **Chew Colonel**, born 3rd April, 1929; s Philip of Burghelere (934), d Chew Belle, s d Pugnani (756).

SPECIAL PRIZE.

GIVEN BY THE DEXTER CATTLE SOCIETY.

The Devonshire Challenge Cup, for the best Animal in the Dexter Classes bred by the Exhibitor, and entered in or eligible for the Dexter Herd Book. The Cup to be won by the same Exhibitor with different animals three years in succession before becoming his absolute property.

I.—Mrs. C. M. L. CALVERT, **Banwell Peter**.

R.—Mrs. C. M. L. CALVERT, **Banwell Opaline 2nd**.

MILK TEST.

CLASS 145.—*Cow, in-Milk, of the Jersey, Guernsey, Kerry or Dexter breed, yielding the largest quantity of milk (at 2 or 3 Milkings under Conditions 57) showing not less than 3% Butter Fat on the average of the combined milkings.* [15 entries.]

I. (£10).—Capt. A. HAROLD STOCKER, The Stocklands Herd, North Lands, Chichester, fawn and white Guernsey, **Whittlebury Viola**, born 15th May, 1925, bred by Miss Lees, Whittlebury Lodge, Towcester; s Rushton Sailor Boy (5042), d Morland Gardenia (12973), s d Reliance of Morland (2835).

II. (£5).—HAROLD JAMES PILBROW, Mapleton, Edenbridge, Kent, fawn and white Guernsey, **Engen Gentle 4th** (21599), born 11th December, 1924, bred by S. Christopher, Engen Farm, Gwithian, Hayle; s Bladen (inderella's Pride (4695), d Engen Gentle 3rd (17690), s d Engen Gay Boy 2nd (3696). (Last calf 6th February, 1931).

III. (£2).—Capt. and Mrs. F. B. IMBERT-TERRY, Blue Hayes, Broad Clyst, Devon, whole Jersey, **Blue Hayes Bannock** (1520), born 19th August, 1922; s Pro Bacchus (13085), d Blue Hayes Baff (Vol. 32, page 75), s d Hotspur (12657).

R.—Capt. L. R. WAND, Bradley Court, Chieveley, Newbury, fawn, little white, Guernsey, **Abbot's Miss Maggie**, born 30th June, 1925, bred by Rev. F. de Paravicini, Abbots Ann, Andover, Hants; s Clatford Bon Espoir (5565), d Abbots Miss Madge (13220), s d Lynchmere (charmant 4th (3177). (Last calf 27th March, 1931).

H.C. LADY HERVEY-BATHURST, Somborne Park, King's Somborne, Hants, whole Jersey, **Maiden Blonde 2nd** (3641), born 27th October, 1922, bred by Mrs. Priestley Foster, Monkton, Taunton; s Eastwood Ming (12353), d Maiden Blonde (Vol. 32, page 382), s d Blonde's Golden Oxford (12554). (Last calf 23rd March, 1931). —Mrs. LIONEL CORBETT, Hockley House, Alresford, Hants, fawn Jersey, **Stonehurst Patricians Heliotrope**, born 22nd October, 1925, bred by Miss Bashall, Stonehurst, Chiddingfold, Surrey; s Penhurst Patrician, d Stonehurst Irene. (Last calf 21st December, 1931). —Capt. and Mrs. F. B. IMBERT-TERRY, whole Jersey, **Blue Hayes Kiltie** (Vol. 31, page 34), born 25th January, 1919; s Hotspur (12657), d Blue Hayes Scottie (Vol. 26, page 239), s d Simpkins Chief (10446). (Last calf 12th March, 1931).

C.—ERIC H. ROSE, Leweston Manor, Sherborne, Dorset, fawn Guernsey, **May of St. Catherine**, born 17th August, bred by P. C. Robilliard, St. Catherine, St. Peter's Port, Guernsey; s Dimples Boy of Cornus Farm (4895), d Pulias Rosy May 3rd (25427), s d Primroses Butterfat (4535). (Last calf 13th March, 1931). —Sir G. STANLEY WHITE, Bart., Hollywood Tower, near Bristol, whole Jersey, **Rosebay of Mayfield 4th**, born 20th June, 1921, bred by W. P. Bandains, St. Lawrence, Jersey; s Cedars Golden Oxford, d Rosebay of Mayfield 2nd, s d Bermuda You'll Do Lad. (Last calf 21st February, 1931).

CLASS 146.—*Cow, in-Milk, of any other breed or cross, yielding the largest quantity of milk (at 2 or 3 Milkings under Conditions 57) showing not less than 3% Butter Fat on the average of the combined milkings.* [19 entries.]

I. (£10).—R. B. TAYLOR & SONS, Sockhill, near Yeovil, white with brown marks on head, Ayrshire, **Waterside Kirsty**, born December, 1924, bred by J. Young, Waterside Mains, Thornhill, N.B.; s Killoch Editor (21481), d Waterside Flora (68236). (Last calf 25th March, 1931).

II. (£5.) - ERNEST B. HALL, Hales Hall, Market Drayton, Salop, British Friesian, **Hache Awry** (71770), born 30th November, 1923, bred by The Hache Herd, Muntham Court, Findon, Worthing, Sussex; s Clockhouse King Akirin (P.I. 11321), d Hache Ceres Untidy (45518), s d Hedges Second Series (P.I. 6427). (Last calf 23rd February, 1931).

III. (£2.)—W. B. DRONSFIELD, Wilmcote Hill, Stratford-on-Avon, brown and white Ayrshire, **High Tarbeg Dot 2nd** (98975), born 14th March, 1924, bred by J. A. Watson; s Meckle Kilmonglow (23499), d High Tarbeg Dot (60708), s d High Tarbeg Kitchener (15645).

R.—Major R. F. FULLER, Great Chalfield, Melksham, red Dairy Shorthorn, **Chalfield Valentine** (13030), born 1st October, 1920; s Kelmscott Field Marshal 6th (143196), d Thanet Valentine (Vol. 64, page 765), s d Marland's Broadhooks (132200). (Last calf 22nd April, 1931).

C.—F. S. FRANCIS, Wilkinthrop Farm, Templecombe, roan Dairy Shorthorn, **Duntish Lee**, born 23rd November, 1920, bred by Capt. T. P. Halford, Duntish Court, Dorset; s Furbelow King, d Lady Lee 24th, s d Darlington Dairy King. (Last calf 28th March, 1931).—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset, white Dairy Shorthorn, **Bessborough Maiden 3rd**, born 29th September, 1924, bred by Earl of Bessborough; s Loobagh Baron 11th, d Secret Maiden 2nd, s d Red Chief. (Last calf 25th February, 1931).—ARTHUR ALLEN, The Manor Chesterblade, Somerset, British Friesian, **Glen Nara** (71540), born 2nd January, 1923; s Kingswood Ynteseries (14531), d Glen Nevada (39202), s d Garton Bravo 3rd (6281). (Last calf 7th March, 1931).

CHAMPION PRIZE.

For the Animal giving the best results in Classes 145 and 146.

I. (£5.)—R. B. TAYLOR & SONS, **Waterside Kirsty**.

R.—E. B. HALL, **Hache Awry**.

GIVEN BY THE DEXTER CATTLE SOCIETY.

The "Bertodano" Challenge Cup for the Dexter Cow obtaining the greatest number of points in the Milk Test Classes.

I.—Mrs. C. M. L. CALVERT, **Barrow Bee 4th**.

R.—A. J. CREED, **Wightwick Dolly 2nd**.

SPECIAL PRIZE.

OFFERED BY THE SOUTH DEVON HERD BOOK SOCIETY.

For the South Devon Cow awarded the greatest number of points in Class 146—£4 4s.

(NOT AWARDED).

GIVEN BY THE ENGLISH COMMITTEE OF THE AYRSHIRE CATTLE HERD BOOK SOCIETY.

For the Ayrshire Cow obtaining the greatest number of points in Class 146.

I. (£5.)—R. B. TAYLOR & SONS, **Waterside Kirsty**.

R.—W. B. DRONSFIELD, **High Tarbeg Dot 2nd**.

OFFERED BY THE BRITISH FRIESIAN CATTLE SOCIETY.

Under its conditions. To the owner of the Cow awarded the greatest number of points in Class 146, provided that such Cow is a British Friesian—£25.

(NOT AWARDED).

BUTTER TEST.

CLASS 147.—*Cow, of any breed or cross, obtaining the greatest number of points by the practical test of the separator and churn. [24 entries.]*

I. (£10.)—HAROLD JAMES PILBROW, Mapleton, Edenbridge, Kent, fawn and white Guernsey, **Engen Gentle 4th** (21599), born 11th December, 1924, bred by S. Christopher, Engen Farm, Gwithian, Hayle; s Bladen Cinderella's Pride (4695), d Engen Gentle 3rd (17690), s d Engen Gay Boy 2nd (3696). (Last calf 6th February, 1931).

II. (£5.)—Mrs. LIONEL CORBETT, Hockley House, Alresford, Hants, fawn Jersey, **Stonehurst Patricians Hellotrope**, born 22nd October, 1925, bred by Miss Bashall, Stonehurst, Chiddingfold, Surrey; s Penshurst Patrician, d Stonehurst Irene. (Last calf 21st December, 1931).

III. (£2.)—Capt. L. R. WAND, Bradley Court, Chieveley, Newbury, fawn, little white, Guernsey, **Abbot's Miss Maggie**, born 30th June, 1925, bred by Rev. F. de Paravicini, Abbots Ann, Andover, Hants; s Clatford Bon Espoir (5565), d Abbots Miss Madge (13220), s d Lynchmere Charmante 4th (3177). (Last calf 27th March, 1931).

R.—Capt. A. HAROLD STOCKER, The Stocklands Herd, North Lands, Chichester, fawn and white Guernsey, **Whittlebury Viola**, born 15th May, 1925, bred by Miss Lees, Whittlebury Lodge, Towcester; s Rushton Sailor Boy (5042), d Morland Gardenia (12973), s d Reliance of Morland (2835).

SPECIAL PRIZES.

OFFERED BY THE RESPECTIVE BREED SOCIETIES.

For the three Jersey Cows obtaining the best results and not less than 42 points.—Gold Medal or £10, Silver and Bronze Medals.

(NOT AWARDED.)

Certificates of Merit awarded to Jersey Cows 4 years old and over having obtained 35 points.

LADY HERVEY-BATHURST, Somborne Park, King's Somborne, Hants, whole Jersey, **Maiden Blonde 2nd** (3641), born 27th October, 1922, bred by Mrs. Priestley Foster, Monkton, Taunton; s Eastwood Ming (12353), d Maiden Blonde (Vol. 32, page 382), s d Blonde's Golden Oxford (12554). (Last calf 23rd March, 1931).—H. LEYBORNE POPHAM, Hunstrete House, Pensford, near Bristol, broken Jersey, **Galen**, born 4th October, 1921, bred by P. J. Michel, St. Peter's, Jersey; s Xenia's Oxford King, d Ranere, s d Spotless Noble.—Capt. & Mrs. F. B. IMBERT-TERRY, Blue Hayes, Broad

Clyst, Devon, whole Jersey, **Blue Hayes Bannock** (1520), born 19th August, 1922; s Pro Bacchus (13085), d Blue Hayes Baff (Vol. 32, page 75), s d Hotspur (12657).—Capt. & Mrs. F. B. IMBERT-TERRY, whole Jersey, **Blue Hayes Kiltie** (Vol. 31, page 34), born 25th January, 1919; s Hotspur (12657), d Blue Hayes Scottie (Vol. 26, page 239), s d Simpkins Chief (10446). (Last calf 12th March, 1931).—Sir G. STANLEY WHITE, Bart., Hollywood Tower, near Bristol, whole Jersey, **Rosebay of Mayfield 4th**, born 20th June, 1921, bred by W. P. Bandains, St. Lawrence, Jersey; s Cedars Golden Oxford, d Rosebay of Mayfield 2nd, s d Bermuda You'll Do Lad. (Last calf 21st February, 1931).

For the Guernsey Cow obtaining the best results.

I. (£5.)—H. J. PILBROW, **Engen Gentle 4th**.

R.—Capt. L. R. WAND, **Abbots Miss Maggie**.

DAIRY.

CLASS 148. *Dairy Cow, in-Milk or to calve within 2 months from the date of the Show, from a herd of not exceeding 15 Dairy Cows, the property of a bona-fide Yeoman or Tenant Farmer residing in the county of Somerset, Gloucester or Wiltshire, and farming not more than 50 acres. [2 entries.]*

I. (£10.)—G. F. D. SHAPLAND, Green Farm, Claverham, near Bristol, dark fawn and white Guernsey, **Cornwall**. (Last calf November, 1929).

II. (£5.)—G. F. D. SHAPLAND, fawn and white Guernsey, **Boscawen Rose Goldie**, born 10th March, 1929, bred by J. Hosking, Boscawen Rose, St. Buryan, Cornwall; s Boscawen Rose Emperor (6716), d Penrose Princess (18148). (Last calf 1st April, 1931).

CLASS 149. *—Dairy Cow, in-Milk or to calve within 2 months from the date of the Show, from a herd of over 15 and under 30 Dairy Cows, the property of a Yeoman or Tenant Farmer residing in the county of Somerset, Gloucester or Wiltshire, and farming not more than 100 acres. [5 entries.]*

I. (£15.)—EDWARD C. HAWKINGS, Kennel Farm, Long Ashton, Shorthorn.

II. (£7.)—W. H. WILLIAMS, The Oaks, Hewish, near Bristol, dark roan Shorthorn, **Hewish Pansy 9th**, born 21st March, 1927; s Hangrave Orme (190327), d Pansy 4th, s d Coker Imperial (154893).

III. (£3.)—H. C. WOOKEY, Elm Farm, Bishopsworth, Bristol, roan Shorthorn, **Betty**, about 6 years old.

R. FRANK REYNOLDS, Redwood Farm, Barrow Gurney, Somerset, roan Shorthorn, **Plum 2nd** (D. 7116), born 21st July, 1924, d Plum (D. 3574, D.S.A.).

V.H.C.—H. C. WOOKEY, Shorthorn, **Joyce**, 5 years old.

SHEEP.

DEVON LONGWOOLLED.

CLASS 150.—*Devon Longwoolled Shearling Ram.* [5 entries.]

I. (£10.)—FREDERICK WHITE, Torweston, Williton, Somerset.

II. (£5.)—FREDERICK WHITE.

III. (£2.)—THOMAS JOHN PEARCEY, Peadhill, Tiverton, Devon, bred by Cecil Brent, Clampit, Callington, Cornwall.

R.—THOMAS JOHN PEARCEY, bred by W. H. Lucas & Son, Great Beare, Marshamchurch, Bude.

CLASS 151.—*Pen of 3 Devon Longwoolled Shearling Ewes.* [2 entries.]

I. (£10.)—FREDERICK WHITE, Torweston, Williton, Somerset.

II. (£5.)—THOMAS JOHN PEARCEY, Peadhill, Tiverton, Devon.

CLASS 152.—*Pen of 3 Devon Longwoolled Ewe Lambs, dropped in 1931.* [2 entries.]

I. (£10.)—FREDERICK WHITE, Torweston, Williton, Somerset.

II. (£5.)—THOMAS JOHN PEARCEY, Peadhill, Tiverton, Devon.

DEVON CLOSE WOOL.

(£10 towards the Prizes in these Classes were given by the Devon Close Wool Sheep Society).

CLASS 153.—*Devon Close Wool Shearling Ram.* [3 entries.]

I. (£10.)—ALFRED RICHARD LERWILL, Maddox Down, East Down, Barnstaple.

II. (5.)—F. W. COOK, Irishborough, Chittlehampton, N. Devon.

III. (£2.)—A. PARKHOUSE & SONS, Holwell, Eastdown, Barnstaple.

CLASS 154.—*Pen of 3 Devon Close Wool Shearling Ewes.* [3 entries.]

I. (£10.)—F. W. COOK, Irishborough, Chittlehampton, N. Devon.

II. (£5.)—A. PARKHOUSE & SONS, Holwell, Eastdown, Barnstaple.

III. (£2.)—ALFRED RICHARD LERWILL, Maddox Down, East Down, Barnstaple.

lviii *Prizes awarded to Devon Close Wool and Hampshire
Down Sheep.*

CLASS 155.—*Pen of 3 Devon Close Wool Ewe Lambs, dropped in
1931. [3 entries.]*

- I. (£10.)—F. W. COOK, Irishborough, Chittlehampton, N. Devon.
- II. (£5.)—A. PARKHOUSE & SONS, Holwell, Eastdown, Barnstaple.
- III. (£2.)—ALFRED RICHARD LERWILL, Maddox Down, East Down, Barnstaple.

SOUTHDOWN.

(Classes 156 to 158. Cancelled through insufficiency of entries).

HAMPSHIRE DOWN.

(£25 towards the Prizes in these Classes and the Champion Prize were given by the Hampshire Down Sheep Breeders' Association).

CLASS 159.—*Hampshire Down Shearling Ram. [11 entries.]*

- I. (£10.)—Major V. S. BLAND, The Warren, Aldbourne, Wilts.
- II. (£5.)—EXECUTORS OF THE LATE JAMES GOLDSMITH, Blendworth, Cosham, Hants, bred by James Goldsmith.
- III. (£2.)—JAMES HERBERT BENYON, Englefield House, Reading, Berks, bred by G. Caines Waters, Burcombe Manor, Salisbury.
- R.—E. CLIFTON-BROWN, Burnham Grove, Burnham, Bucks.
- C.—W. Melville Wills, Estate Office, Bracken Hill, Leigh Woods, near Bristol.

CLASS 160.—*Hampshire Down Ram Lamb, dropped in 1931. [12
entries.]*

- I. (£10.)—JAMES HERBERT BENYON, Englefield House, Reading, Berks.
- II. (£5.)—EXECUTORS OF THE LATE JAMES GOLDSMITH, Blendworth, Cosham, Hants, bred by James Goldsmith.
- III. (£2.)—Major V. S. BLAND, The Warren, Aldbourne, Wilts.
- R.—P. C. TORY, Shapwick, Blandford.
- H.C.—W. MELVILLE WILLS, Estate Office, Bracken Hill, Leigh Woods, near Bristol.

CLASS 161.—*Pen of 3 Hampshire Down Ram Lambs, dropped in
1931. [10 entries.]*

- I. (£10.)—Major V. S. BLAND, The Warren, Aldbourne, Wilts.
- II. (£5.)—EXECUTORS OF THE LATE JAMES GOLDSMITH, Blendworth, Cosham, Hants, bred by James Goldsmith.
- III. (£2.)—P. C. TORY, Shapwick, Blandford.

*Prizes awarded to Hampshire Down and
Oxford Down Sheep.*

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R.—G. CAINES WATERS, Burcombe Manor, near Salisbury.

H.C.—E. CLIFTON-BROWN, Burnham Grove, Burnham, Bucks.

C.—JAMES HERBERT BENYON, Englefield House, Reading, Berks.

CLASS 162.—*Pen of 3 Hampshire Down Shearling Ewes.* [4 entries.]

I. (£10.)—E. CLIFTON-BROWN, Burnham Grove, Burnham, Bucks.

II. (£5.)—W. MELVILLE WILLS, Estate Office, Bracken Hill, Leigh Woods, near Bristol, bred by John Pain, Borough Flock, Micheldever.

R.—JAMES HERBERT BENYON, Englefield House, Reading, Berks.

CLASS 163.—*Pen of 3 Hampshire Down Ewe Lambs, dropped in 1931.* [10 entries.]

I. (£10.)—EXECUTORS OF THE LATE JAMES GOLDSMITH, Blendworth, Cosham, Hants, bred by James Goldsmith.

II. (£5.)—JAMES HERBERT BENYON, Englefield House, Reading, Berks.

III. (£2.)—Major V. S. BLAND, The Warren, Aldbourne, Wilts.

R.—G. CAINES WATERS, Burcombe Manor, near Salisbury.

V.H.C.—E. CLIFTON-BROWN, Burnham Grove, Burnham, Bucks.

C.—P. C. TORY, Shapwick, Blandford.

CHAMPION PRIZE.

Best Ram, Ram Lamb or Pen in the Hampshire Down Classes.

I. (£5.)—Major V. S. BLAND.

R.—EXECUTORS OF THE LATE J. GOLDSMITH.

OXFORD DOWN.

CLASS 164.—*Oxford Down Shearling Ram.* [6 entries.]

I. (£10.)—HUGH WILLIAM STILGOE, The Grounds, Adderbury, near Banbury, Oxon.

II. (£5.)—HUGH WILLIAM STILGOE.

III. (£2.)—GEORGE HARRY WILLIS, Ivy Lodge, Birdlip, near Gloucester, bred by W. H. Hitch, Elkstone Manor, near Cheltenham.

R.—HUGH WILLIAM STILGOE.

H.C.—GEORGE HARRY WILLIS, bred by W. H. Hitch, Elkstone Manor, near Cheltenham.

C.—GEORGE HARRY WILLIS, bred by Major R. F. Fuller, Great Chalfield Melksham.

1x *Prizes awarded to Oxford Down and Dorset Down Sheep.*

CLASS 165.—*Pen of 3 Oxford Down Ram Lambs, dropped in 1931.*
[3 entries.]

I. (£10.)—W. F. G. WATTS, Elsfield, Oxford.

II. (£5.)—Major R. F. FULLER, Great Chalfield, Melksham.

III. (£2.)—HUGH WILLIAM STILGOE, The Grounds, Adderbury, near Banbury, Oxon.

CLASS 166.—*Pen of 3 Oxford Down Shearling Ewes.* [3 entries.]

I. (£10.)—HUGH WILLIAM STILGOE, The Grounds, Adderbury, near Banbury Oxon.

II. (£5.)—W. F. G. WATTS, Elsfield, Oxford.

III. (£2.)—GEORGE HARRY WILLIS, Ivy Lodge, Birdlip, near Gloucester; two, bred by T. Rich & Son, Aldsworth, near Cheltenham, one bred by W. H. Hitch, Elkstone Manor, Cheltenham.

(£10 towards the Prizes in Class 167 were given by the Oxford Down Sheep Breeders' Association).

CLASS 167.—*Pen of 3 Oxford Down Ewe Lambs, dropped in 1931.*
[3 entries.]

I. (£10.)—W. F. G. WATTS, Elsfield, Oxford.

II. (£5.)—HUGH WILLIAM STILGOE, The Grounds, Adderbury, near Banbury, Oxon.

R.—Major R. F. FULLER, Great Chalfield, Melksham.

DORSET HORN.

(Classes 168 to 170. Cancelled through insufficiency of entries).

DORSET DOWN.

(£15 towards the Prizes in these Classes were given by the Dorset Down Sheep Breeders' Association).

CLASS 171.—*Dorset Down Shearling Ram.* [3 entries.]

I. (£10.)—DEBENHAM & TORY, Anderson, Blandford, Dorset.

II. (£5.)—P. & C. SEWARD, Weston, Petersfield, Hants.

III. (£2.)—P. & C. SEWARD, bred by Hooper Bros., Newburgh Farm, Winfrith, Dorchester.

CLASS 172.—*Pen of 3 Dorset Down Ram Lambs, dropped in 1931.*
[3 entries.]

I. (£10.)—P. & C. SEWARD, Weston, Petersfield, Hants.

II. (£5.)—Major GEORGE FREDERICK DAVIES, M.P., Leigh House, Chard, Somerset.

III. (£2.)—DEBENHAM & TORY, Anderson, Blandford, Dorset.

CLASS 173.—*Pen of 3 Dorset Down Shearling Ewes.* [2 entries.]

I. (£10.)—Major GEORGE FREDERICK DAVIES, M.P., Leigh House, Chard.

II. (£5.)—DEBENHAM & TORY, Anderson, Blandford, Dorset.

EXMOOR HORN.

(£17 towards the Prizes in these Classes were given by the Exmoor Horn Sheep Breeders' Society).

CLASS 174.—*Exmoor Horn Ram, 2 Shear and upwards.* [2 entries.]

I. (£10.)—ALEXANDER FOWNES LUTTRELL, Court House, East Quantoxhead, bred by F. J. Winger, Wellshead, Exford, Taunton.

II. (£5.)—H. E. B. GUNDRY, Melplash Court, Dorset, bred by J. Robins, Wallover Barton, Bratton Fleming, Barnstaple.

CLASS 175.—*Exmoor Horn Shearling Ram.* [2 entries.]

I. (£10.)—FRED BEADLE, Stowey Farm, Timberscombe, Somerset.

II. (£5.)—H. E. B. GUNDRY, Melplash Court, Dorset.

CLASS 176.—*Pen of 3 Exmoor Horn Ram Lambs, dropped in 1931.*
[2 entries.]

I. (£10.)—ALEXANDER FOWNES LUTTRELL, Court House, East Quantoxhead.

II. (£5.)—H. E. B. GUNDRY, Melplash Court, Dorset.

CLASS 177.—*Pen of 3 Exmoor Horn Shearling Ewes.* [2 entries.]

I. (£10.)—FRED BEADLE, Stowey Farm, Timberscombe, Somerset.

II. (£5.)—H. E. B. GUNDRY, Melplash Court, Dorset.

SUFFOLK.

(Classes 178 to 180. Cancelled through insufficiency of entries).

RYELAND.

(£10 towards the Prizes in these Classes and the Champion Prize were given by the Ryeland Sheep Society).

CLASS 181.—*Ryeland Shearling Ram.* [4 entries.]

I. (£10.)—WALTER WOOLLAND, M.F.H., Baydon Manor, Ramsbury, Marlborough, Wilts.

II. (£5.)—W. L. HORBURY, Ettington Park, Stratford-on-Avon.

R.—W. L. HORBURY.

CLASS 182.—*Pen of 3 Ryeland Ram Lambs, dropped in 1931.*
[3 entries.]

I. (£10.)—WALTER WOOLLAND, M.F.H., Baydon Manor, Ramsbury, Marlborough, Wilts.

II. (£5.)—W. L. HORBURY, Ettington Park, Stratford-on-Avon.

R.—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset.

CLASS 183.—*Pen of 3 Ryeland Shearling Ewes.* [4 entries.]

I. (£10.)—WALTER WOOLLAND, M.F.H., Baydon Manor, Ramsbury, Marlborough, Wilts.

II. (£5.)—W. L. HORBURY, Ettington Park, Stratford-on-Avon.

III. (£2.)—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset.

CLASS 184.—*Pen of 3 Ryeland Ewe Lambs, dropped in 1931.*
[3 entries.]

I. (£10.)—WALTER WOOLLAND, M.F.H., Baydon Manor, Ramsbury, Marlborough, Wilts.

II. (£5.)—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset.

III. (£2.)—Capt. D. M. WILLS.

CHAMPION PRIZE.

A Silver Medal for the best Ram or Pen in the Ryeland Classes.

I.—W. WOOLLAND, M.F.H.

R.—W. WOOLLAND, M.F.H.

DARTMOOR.

(Classes 185 to 188. Cancelled through insufficiency of entries).

KERRY HILL.

(£10 towards the Prizes in these Classes were given by the Kerry Hill (Wales) Flock Book Society).

CLASS 189.—*Kerry Hill Ram, 2 Shear and upwards.* [3 entries.]

I. (£10.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, **Welshpool Daimler** (14738), bred by Cyril Alderson, Leighton, Welshpool.

II. (£5.)—Miss R. B. BABCOCK, **Staunton Masterpiece** (15558), bred by Edwards & Son, Pembridge, Herefordshire.

CLASS 190.—*Kerry Hill Shearling Ram.* [8 entries.]

I. (£10.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, **Greenfields Grenadier** (Vol. 31), bred by the Marquess of Londonderry, Plas, Machynlleth

II. (£5.)—Sir DAVID R. LLEWELLYN, Bart., The Court, St. Fagans, **St. Fagans Franklin.**

III. (£2.)—Sir DAVID R. LLEWELLYN, Bart., **St. Fagans Freeman.**

R.—Hon. Mrs. ESME SMYTH, Ashton Court, Long Ashton, Bristol, **Ashton Hotspur** (15767).

H.C.—Hon. Mrs. ESME SMYTH, **Ashton Hunter** (15768).

CLASS 191.—*Pen of 3 Kerry Hill Shearling Ewes.* [5 entries.]

I. (£10.)—Hon. Mrs. ESME SMYTH, Ashton Court, Long Ashton, Bristol.

II. (£5.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey.

III. (£2.)—Sir DAVID R. LLEWELLYN, Bart., The Court, St. Fagans.

R.—Hon. Mrs. ESME SMYTH.

H.C.—J. N. KENDALL, Brimpsfield Park, Glos., (Flock Book No. 464).

CLASS 192.—*Pen of 3 Kerry Hill Ewe Lambs, dropped in 1931.*
[3 entries.]

I. (£10.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey.

II. (£5.)—J. N. KENDALL, Brimpsfield Park, Glos.

GOATS.

(£10 towards the Prizes in these Classes were given through the British Goat Society).

CLASS 193.—*Female Goat, in-Milk, any age, British Alpine, Toggenburg, British Toggenburg, Saanen or British Saanen.* [14 entries.]

I. (£2 10s.).—Miss V. WALTON, Hawthorn Cottage, East Ashling, Chichester, white hornless British Saanen, **Feltham Fairy**, born February, 1929, bred by Mrs. Browell, Ringlets, Battle, Sussex; s Playwright of Bashley, d Distrain Q*. (Last kid 10th April, 1931).

II. (£1 10s.).—Miss POPE, Bashley Lodge, New Milton, British Toggenburg, **Layland Pearl**** (8203), born 10th June, 1927, bred by Mrs. Vernon; s Fryston Sprig (T. 620), d Ridgeway Ring o' Roses* (7068), s d †Didgemere Daniel.

III. (15s.).—Mrs. M. J. RUTTER, Great Cheverell, Wilts, brown, white markings, British Toggenburg, **Raydon Aerial *Q*** (6946), born 1st March, 1925; s Raydon St. Gallen (6751), d Raydon Morella* (5412). (Last kid 21st February, 1931).

R.—J. REGINALD EGERTON, Malpas Cottage, Rushmere, Ipswich, whitish, **Malpas Meadowsweet** (B.S. 150), born 18th February, 1929; s †Frausham Ferdinand (8062), d §§Theydon Perfection *Q*Q*Q** (B.S. 45), s d Ridgeway Rumpelstiltskin (6536). (Last kid 3rd March, 1931).

V.H.C.—Mrs. R. K. MORCOM, Clock House, Bromsgrove, white British Saanen, **Cornish Prophetess** (7480), born 1st February, 1926; s Ch. †Ridgeway Ranunculus, d Cornish Le Fay **Q*, s d †Tremedda Perceval. (Last kid 10th March, 1931).—Miss EMILY SKIDMORE, Ashley Leigh, Box, Wilts, white British Saanen, **Heddon Shake** (A.B. 9014), born 28th February; s Heddon Solan (H.B. 8322), d Heddon Silvo (H.B. 7452), s d Ch. Schnapps. (Last kid 11th March, 1931).

H.C.—Mrs. R. K. MORCOM, white British Saanen, **Cornish Cassandra** (9391), born 15th April, 1929; s Priest of Bashley (6926), d Cornish Sybil **Q*Q* (7481), s d Ch. †Ridgeway Ranunculus. (Last kid 6th March, 1931).

C.—Mrs. BROWELL, Ringlets, Battle, Sussex, white, **Feltham Fashion** (9044), born 19th February, 1929; s Playwright of Bashley, d Play of Bashley (Q*Q*Q*Q*), s d Herne Bay Thark.—J. REGINALD EGERTON, black, white markings, **Malpas Dawn** (B.A. 97), born 7th March, 1929; s †Frausham Ferdinand (8062), d §§Leazes Deverest **Q** (B.A. 11), s d †Didgemere Dennis (5487).—Mrs. R. K. MORCOM, white British Saanen, **Cornish Reeve** (9376), born 14th March, 1929; s Ridgeway Rumpelstiltskin (6536), d Cornish Canary, s d †Cornish Ranunculus. (Last kid 31st January, 1931).—Miss V. WALTON, brown Toggenburg, **Murrystone Odelle** (H.B.) (T. 656), born 24th February, 1928, bred by Miss Burgess, Oliver's Stray, Ripon, Yorks; s Murrystone Buchan, d Ciceter Odette. (Last kid 29th March, 1931).

CLASS 194.—*Female Goat, in-Milk, any age, any other Variety.*
[8 entries.]

I. (£2 10s.).—Mrs. ROGER WETHERED, Upper Boddington, Rugby, black and white British, **Didgemere Delgada** (8829), born 4th March, 1928, bred by Mrs. Arthur Abbey, Didgemere Hall, Roydon; s †Didgemere Doctor, d Ch. Didgemere Deebce Q*Q*, s d Ch. †Prophet of Bashley. (Last kid 12th April, 1931).

II. (£1 10s.).—Mrs. R. K. MORCOM, Clock House, Bromsgrove, brown and white Anglo-Nubian-Swiss, **Cornish Fondant** (8882), born 11th March, 1928; s †Cornish Quirk (6979), d Cornish Fudge Q*Q* (5654), s d †Tremedda Perceval. (Last kid 22nd February, 1931).

III. (15s.).—Mrs. BROWELL, Ringletts, Battle, Sussex, white, **Cobalt Caprice** (8628), born 12th March, 1928, bred by Mrs. Summers, Ferndown, Wimborne, Dorset; s Playwright of Bashley, d Cobalt Chrysolite.

R.—Miss EMILY SKIDMORE, Ashley Leigh, Box, Wilts, black roan British **Heddon Saltcellar**** (7446), born 5th March, 1925; s †Peter of Bashley (H.B. 4207), d Heddon Amic* (H.B. 4409), s d Tremanton of Trenance (3286). (Last kid 28th March, 1931).

V.H.C.—Miss V. WALTON, Hawthorn Cottage, East Ashling, near Chichester, black, white points, hornless British Alpine, **Highland Grisette** (H.B. 8592), born 2nd February, 1928, bred by Mrs. Marshall, Owermoigne Moor, Dorchester; s Wordsworth of Westons, d Highland Minette Q*Q*Q**. (Last kid 11th April, 1931).

H.C.—Mrs. R. K. MORCOM, brown, white points, Anglo-Nubian-Swiss, **Cornish Maiden Q*Q*** (8028), born 21st February, 1927; s †Fryston Straitlace (T. 568), d Cornish Maid Q* (6783), s d Ch. †Dochfour Arrogance. (Last kid 16th January, 1931).

CLASS 195.—*Goatling, any variety, over one but not exceeding two years.* [9 entries.]

I. (£2 10s.).—J. R. EGERTON, Malpas Cottage, Rushmere, Ipswich, white, **Malpas Melody** (B.S. 155), born 10th March, 1930; s Heddon Solan (B.S. 106), d Ridgeway Romneya Q*Q* (B.S. 13), s d Ch. †Ridgeway Ranunculus (5528).

II. (£1 10s.).—Miss EMILY SKIDMORE, Ashley Leigh, Box, Wilts, white British, **Heddon Song** (9611), born 6th February, 1930; s Heddon Solan (H.B. 8322), d Heddon Saffron **Q*** (H.B. 5258), s d †Peter of Bashley.

III. (15s.).—Mrs. ROGER WETHERED, Upper Boddington, Rugby, white British, **Boddington Lily** (9523), born 20th January, 1930; s Ridgeway Rip Van Winkle, d Lightwater Delight, s d †Ridgeway Raymond.

R.—Miss EMILY SKIDMORE, white British, **Heddon Silhouette** (9610), born 25th February, 1930; s †Springfield Luke (G. 121), d Heddon Silvo (7452), s d †Peter of Bashley. (Last kid 10th February, 1931).

V.H.C.—Miss POPE, Bashley Lodge, New Milton, brown and white British, **Feltham Firefly** (9590), born 4th April, 1930, bred by Mrs. Browell; s †Playwright of Bashley (8035), d Ch. Play of Bashley Q*Q*Q*Q* (6540).

H.C.—Mrs. ROGER WETHERED, black and white British, **Didgemere Jock** (9981), born 5th March, 1930, bred by Mrs. Arthur Abbey, Didgemere Hall Roydon; s †Didgemere Angus, d Didgemere Dross Q*Q***, s d Ch. †Prophet of Bashley.

C.—Mrs. BROWELL, Ringletts, Battle, Sussex, grey and white, **Feltham Purity** (9591), born 4th April, 1930; s Playwright of Bashley, d Play of Bashley Q*Q*Q*Q*, s d Herne Bay Thark.—J. R. EGERTON, white and roan, **Malpas Mignonette** (9504), born 28th September, 1929; s †Frausham Ferdinand (8062), d Malpas Patience **Q**Q* (8868), s d †Theydon Beau Brocade (A.N. 1677).—Mrs. M. J. RUTTER, Great Cheverell, Wilts, brown, white markings, British Toggenburg, **Raydon Cassia** (B.T. 92), born 1st April, 1930; s †Durley Dorion (B.T. 87), d Raydon Aerial *Q* (6946).

CLASS 196.—*Female Kid, any variety, not exceeding one year.*
[7 entries.]

I. (£2 10s.)—J. R. EGERTON, Malpas Cottage, Rushmere, Ipswich, white, **Malpas Myrtle** (B.S. 217), born 1st August, 1930; s Heddon Solan (B.S. 106), d Malpas Honeysuckle (B.S. 149), s d †Frausham Ferdinand (8062).

II. (£1 10s.)—Mrs. M. J. RUTTER, Great Cheverell, Wilts, black and white British, **Raydon Blackberry** (9961), born 11th July, 1930; s †Raydon Liquorice (9960), d Raydon Caramel (8788).

III. (15s.)—J. R. EGERTON, white, **Malpas Mimi** (B.S. 223), born 22nd February, 1931; s Heddon Solan (B.S. 106), d §§Theydon Perfection *Q*Q*Q** (B.S. 45), s d Ridgeway Rumpelstiltskin (6536).

R.—Mrs. REES-SMITH, Ashley Leigh, Box, Wilts, biscuit British, **Elizabeth**, born 3rd February, 1931; s †Springfield Luke, d Barbette (A.N. 1962), s d Etherley Corrie (A.N. 1925). (Last kid 3rd February, 1931).

V.H.C.—Miss POPE, Bashley Lodge, New Milton, white British Saanen, **Pipe of Bashley**, born 7th March, 1931; s †Springfield Count, d Mostyn Mandoline (9040), s d †Didgemere Aristocrat (8207).

CLASS 197.—*Milking Competition for Quality (Butter Fat only), quantity and time (two milkings).* [27 entries.]

I. (£2 10s.)—Miss POPE, Bashley Lodge, New Milton, British Toggenburg, **Layland Pearl**** (8203), born 10th June, 1927, bred by Mrs. Vernon; s Fryston Sprig (T. 620), d Ridgeway Ring o' Roses* (7068), s d †Didgemere Daniel.

II. (£1 10s.)—Mrs. BROWELL, Ringletts, Battle, Sussex, white, **Cobalt Caprice** (8628), born 12th March, 1928, bred by Mrs. Summers, Ferndown, Wimborne, Dorset; s Playwright of Bashley, d Cobalt Chrysolite.

III. (15s.)—Miss EMILY SKIDMORE, Ashley Leigh, Box, Wilts, black roan British, **Heddon Saltcellar**** (7446), born 5th March, 1925; s †Peter of Bashley (H.B. 4207), d Heddon Amic* (H.B. 4409), s d Tremanton of Trenance (3286). (Last kid 28th March, 1931).

R.—Mrs. M. J. RUTTER, Great Cheverell, Wilts, brown, white markings, British Toggenburg, **Raydon Aerial *Q*** (6946), born 1st March, 1925; s Raydon St. Gallen (6751), d Raydon Morella* (5412.) (Last kid 21st February, 1931).

CLASS 198.—*Milking Competition for Quantity and Time only (three milkings).* [26 entries.]

I. (£2 10s.)—Miss EMILY SKIDMORE, Ashley Leigh, Box, Wilts, black roan British, **Heddon Saltcellar**** (7446), born 5th March, 1925; s †Peter of Bashley (H.B. 4207), d Heddon Amie* (H.B. 4409), s d Tremanton of Trenance (3286). (Last kid 28th March, 1931).

II. (£1 10s.)—Mrs. BROWELL, Ringlets, Battle, Sussex, white, **Cobalt Caprice** (8628), born 12th March, 1928, bred by Mrs. Summers, Ferndown, Wimborne, Dorset; s Playwright of Bashley, d Cobalt Chrysolite.

III. (15s.) Miss POPE, Bashley Lodge, New Milton, British Toggenburg, **Layland Pearl**** (8203), born 10th June, 1927, bred by Mrs. Vernon; s Fryston Sprig (T. 620), d Ridgeway Ring o' Roses* (7068), s d †Didgemere Daniel.

R.—Mrs. M. J. RUTTER, Great Cheverell, Wilts, brown, white markings, British Toggenburg, **Raydon Aerial *Q*** (6946), born 1st March, 1925; s Raydon St. Gallen (6751), d Raydon Morella* (5412). (Last kid 21st February 1931).

SPECIAL PRIZES.

GIVEN BY THE BRITISH GOAT SOCIETY.

A Challenge Certificate for the Best Female Goat over two years that has borne a kid.

I.—Mrs. ROGER WETHERED, **Didgemere Delgada.**

R.—Miss V. WALTON, **Feltham Fairy.**

A Challenge Certificate for the Best Dual Purpose Goat over two years that has borne a kid.

I.—Miss POPE, **Layland Pearl.**

R.—Mrs. M. J. RUTTER, **Raydon Aerial.**

A Bronze Medal for the Best Female Exhibit.

I.—Mrs. ROGER WETHERED, **Didgemere Delgada.**

R.—J. R. EGERTON, **Malpas Melody.**

The Dewar Challenge Trophy for the Goat over two years, other than an Anglo-Nubian, gaining the highest number of points in the Milking Competition.

I.—Miss POPE, **Layland Pearl.**

R.—Mrs. BROWELL, **Cobalt Caprice.**

(The Prizes awarded at this Show were also included in the awards for the British Goat Society's "Breoders'" Perpetual Challenge Cup and "Stud Goat" Challenge Cup).

PIGS.

BERKSHIRE.

(£5 towards the Prizes in these Classes and the Two Silver Cups were given by the National Pig Breeders' Association, and ages were calculated to May 20, 1931),

CLASS 199.—*Berkshire Boar, exceeding 18 months old.* [6 entries.]

I. (£8.)—S. CECIL ARMITAGE, Lenton Fields, Nottingham, **Bridge Keystone** (1961), born 24th March, 1927, bred by J. Fricker, Junr., Bridge Farm, Hardington, Yeovil; s Iwerne Exchequer (B. 784), d Bungays Forty (S2884), s d Heale War Lunn (24172).

II. (£5.)—HARRY C. INWOOD, Ridgemoor, **Ridgemoor Pygmalion 8th** (H.B. Vol. 47), born 17th August, 1929; s Highfield Royal Pygmalion 13th (2077), d Hillfort Princess 3rd (7960), s d Pamber Ace of Spades (25757).

III. (£2.)—HILLSBOROUGH FRUIT FARM, Canford, Wimborne, Dorset, **Chapel President** (2803), born 5th January, 1929, bred by T. E. Prest, Chapel Farm, Swinton, Yorks; s Highfield Royal President 6th (1638), d Swinton Careful Marjory (6402), s d Hammonds Carrier (1022).

R.—HILLSBOROUGH FRUIT FARM, **Rudgate Hercules** (2595), born 17th February, 1928, bred by Charles Triffit, Ferncliffe House, Tockwith, Yorks; s Rudgate Renown (2219), d Fulford Princess Royal (5770), s d Highfield Royal President 2nd (339).

CLASS 200.—*Berkshire Boar, not exceeding 18 months old.* [5 entries.]

I. (£7.)—HILLSBOROUGH FRUIT FARM, Canford, Wimborne, **Canford King Lud**, born 10th February, 1930, bred by Canford Schools, Wimborne; s Woodhouse Golden Arrow (3083), d Southworth Lun 12th (9982), s d Heale Nutmeg 2nd (26448).

II. (£4.)—H. C. INWOOD, Ridgemoor, **Ridgemoor Royal Pygmalion**, born 16th March, 1930; s Ridgemoor Pygmalion 5th (2715), d Highfield Princess Royal 35th (6288), s d Highfield Royal President 2nd (339).

III. (£2.)—HILLSBOROUGH FRUIT FARM, **Hillsborough Peacemaker 2nd** born 29th May, 1930; s Woodhouse Ned (Vol. 47), d Woodhouse Beautiful (6987), s d Murrell Peacemaker.

R.—HILLSBOROUGH FRUIT FARM, **Hillsborough Peacemaker**, born 29th May, 1930; s Woodhouse Ned (Vol. 47), d Woodhouse Beautiful (6987), s d Murrell Peacemaker.

CLASS 201.—*Berkshire Breeding Sow, exceeding 18 months old.*
[5 entries.]

I. (£8.)—HILLSBOROUGH FRUIT FARM, Canford, Wimborne, **Southworth Lun 12th** (9982), born 14th July, 1927, bred by J. Ball, Southworth, Warrington; s Heale Nutmeg 2nd (26448), d Southworth Lun 5th (8570), s d Swinton Printer (1309).

II. (£5.)—E. CLIFTON-BROWN, Burnham Grove, Burnham, Bucks, **Iwerne May 3rd** (8080), born 28th January, 1927, bred by J. H. Ismay; s Hammonds Bonny Lad (480), d Greenmoor May Burton 12th (3969), s d Carry On (21191).

III. (£2.)—E. CLIFTON-BROWN, **Burnham Godiva**, born 8th July, 1929; s Richings British Royalist (2203), d Godinton Daisy 14th (7808), s d Godinton Lunn King (1645).

R.—HARRY C. INWOOD, Ridgemoor, **Hillfoot Miss**, born 30th July, 1929, bred by G. W. Layley, Hillfoot Farm, Burnham; s Hillfoot Premier (2885), d Hillfoot Madam (9536), s d Hillfoot Count (1696).

CLASS 202. *Berkshire Breeding Sow, not exceeding 18 months old.*
[7 entries.]

I. (£7.)—HARRY C. INWOOD, Ridgemoor, **Ridgemoor Empress 6th**, born 3rd January, 1930; s Highfield Royal Pygmalion 13th (2077), d Ridgemoor Empress (11054), s d Monarch (1720).

II. (£4.)—E. CLIFTON-BROWN, Burnham Grove, Burnham, Bucks, **Burnham Griquea**, born 24th January, 1930; s Burnham Nutteracker, d Godinton Daisy 14th, s d Godinton Lunn King.

III. (£2.)—HILLSBOROUGH FRUIT FARM, Canford, Wimborne, **Canford Charm 12th** (Vol. 48), born 30th April, 1930, bred by Canford School, Wimborne; s Highfield Royal President 19th (1914), d Canford Charm (7000), s d Manor Umpire (B. 1660).

H.C.—HILLSBOROUGH FRUIT FARM, **Canford Selection**, born 26th April, 1930, bred by Canford School, Wimborne; s Woodhouse Ned (Vol. 47), d Hammonds Select (7876), s d Carry On (21191).

SILVER CUPS.

Best Boar in the Berkshire Classes.

I.—S. C. ARMITAGE, **Bridge Keystone.**

R.—H. C. INWOOD, **Ridgemoor Pygmalion 8th.**

Best Sow in the Berkshire Classes.

I.—HILLSBOROUGH FRUIT FARM, **Southworth Lun 12th.**

R.—E. CLIFTON-BROWN, **Iwerne May 3rd.**

Silver Medals were awarded to the Breeder of the prize-winning Animals.

LARGE BLACK.

(£12 towards the Prizes in these Classes and the Silver Medals were given by the Large Black Pig Society).

CLASS 203.—*Large Black Boar, farrowed before May 1, 1930.* [2 entries.]

I. (£8).—WALTER J. WARREN, Deacons Farm, Staplegrove, Taunton, **Kibbear Royal Prior 5th**, born 4th January, 1926; s Kibbear Royal Willie, d Haselbury Beauty, s d Breant Councillor.

CLASS 204.—*Large Black Boar, not exceeding 12 months old on May 1, 1931.* [6 entries.]

I. (£7).—THOMAS FREDERICK JAMES, Chantershier Farm, Norwood Hill, Horley, Surrey, **Treluckey Radio 3rd** (G. 323), born 22nd July, 1930; s Valley Cheerio (E. 511), d Treluckey Black Lady 32nd (C. 2396), s d Treluckey Pedestrian 1st (B. 183).

II. (£4).—GEOFFREY G. MYATT, Beechcroft, Kilminster, Axminster, Devon, **Kibbear My Friend**, born 27th August, 1930, bred by Walter J. Warren, Deacons Farm, Staplegrove, Taunton; s Kilminster Royal Laddie, d Pednor Lass 5th, s d Pednor Royal 2nd.

III. (£2).—G. P. MERRIFIELD, Gunabarn Farm, Summercourt, Cornwall, **Gunabarn Storm King**, born 30th August, 1930; s Carjoll 14th (C. 1113), d Gunabarn Queen 2nd (C. 196), s d Warrens Park Dumpling (A. 223).

R.—JOSEPH DILLWORTH CREWDSON, Syde, near Cheltenham, **Syde Leader**, born 20th July, 1930; s Syde Knight (F. 321), d Syde Lightning 16th (F. 256), s d Syde Dragon (D. 799).

CLASS 205.—*Large Black Boar, farrowed in 1931.* [3 entries.]

I. (£7).—R. GYNN & SON, Treslay, Boscastle, **Treslay Dandy 2nd** (H. 13), born 6th January; s Tregirls Padstonian (D. 573), d Treslay Lass 9th (F. 1006), s d Hendra Sunstar (D. 5).

II. (£4).—HARRY E. BASTARD, Tinten Manor, St. Tudy, Cornwall, **Tinten Weathergauge** (H. 5), born 3rd January; s West Petherwin Leader 2nd (E. 553), d Tinten Heroine 13th (E. 54), s d Tinten Leader (C. 849).

III. (£2).—THOMAS FREDERICK JAMES, Chantershier Farm, Norwood Hill, Horley, Surrey, **Treluckey Victor 2nd** (H. 1), born 7th January; s Valley Muscat (G. 329), d Treluckey Black Lady 49th (G. 362), s d Valley Satisfaction 2nd (D. 673).

CLASS 206.—*Large Black Breeding Sow, farrowed before May 1, 1930.* [6 entries.]

I. (£8).—R. GYNN & SON, Treslay, Boscastle, Cornwall, **Treslay Belle 19th** (E. 1098), born 28th July, 1928; s Maori Khedive (C. 371), d Westpetherwin Sunbeam (A. 170), s d Trevisquite Joseph (20911).

II. (£5).—The EARL OF DUCIE, Tortworth Court, Falfeld, Glos., **Tortworth Ninette 40th** (G. 36), born 10th January, 1930; s Redmarley Emperor 2nd (E. 33), d Tortworth Ninette 30th (D. 2278), s d Lustleigh Lad 2nd (29739).

III. (£2).—WALTER J. WARREN, Deacons Farm, Staplegrove, Taunton, **Kibbear Beauty**, born 2nd July, 1926; s Kibbear Royal Prior 4th (A. 1225), d Haselbury Beauty, s d Brent Councillor.

R.—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset, **Barleywood Senorita 14th**, born 27th February, 1928; s Brackenhill Naik 5th, d Barleywood Senorita 12th, s d Treator Ambassador.

V.H.C.—BENNETT & HOWARD, Quarry Farm, Thornbury, Bristol, **Haseley Larkspur 5th** (D. 2778), born 9th August, 1927, bred by Capt. Bruce, Quarry Farm, Thornbury, Bristol; s Haseley Monarch 2nd (B. 209), d Holmwood Dunlia 2nd (113244), s d Dunsfold Chief (22287).

H.C.—HARRY BREWER HASKELL, Watsons, Belsford, Harberton, near Totnes, **Harberton Princess 1st**, born 2nd December, 1929; s Brent Totnesian (F. 475), d Langland Princess 13th, s d Langland Sambo (C. 847).

CLASS 207. *Large Black Breeding Sow, not exceeding 12 months old on May 1, 1931.* [6 entries.]

I. (£7).—HARRY E. BASTARD, Tinten Manor, St. Tudy, Cornwall, **Tinten Heroine 20th** (G. 800), born 25th May, 1930; s Westpetherwin Leader 2nd (E. 553), d Tinten Heroine 13th (E. 54), s d Tinten Leader (C. 849).

II. (£4).—WALTER J. WARREN, Deacons Farm, Staplegrove, Taunton, **Kibbear Lady Friend**, born 27th August, 1930; s Kilmington Royal Laddie, d Pednor Lass 5th, s d Pednor Royal 2nd.

III. (£2).—JOHN H. GLOVER, J.P., Cornwood, S. Devon, **Cornwood Empress** (G. 1314), born 1st July, 1930; s Treveglos Chief 1st (C. 109), d Patshull Susan 4th (D. 594), s d Patshull Prince 1st (B. 405).

R.—HARRY BREWER HASKELL, Watsons, Belsford, Harberton, near Totnes, **Cornwood Gem**, born 1st July, 1930, bred by John H. Glover, Cornwood; s Treveglos Chief 1st (C. 109), d Patshull Susan 4th (D. 594), s d Patshull Prince 1st (B. 405).

V.H.C.—JOSEPH DILLWORTH CREWDSON, Sydc, near Cheltenham, **Syde Lightning 20th**, born 20th July, 1930; s Syde Knight (F. 321), d Syde Lightning 16th (F. 256), s d Syde Dragon (D. 799).

H.C.—G. P. MERRIFIELD, Gunabarn Farm, Summercourt, Cornwall, **Gunabarn Queen 12th**, born 10th May, 1930; s Bassingborn Bradbury (C. 35), d Gunabarn Beauty (F. 970), s d Gunabarn Sportsman (D. 29).

CLASS 208. *Large Black Breeding Sow, farrowed in 1931.* [5 entries.]

I. (£7).—HARRY E. BASTARD, Tinten Manor, St. Tudy, Cornwall, **Tinten Heroine 23rd** (H. 10), born 3rd January; s Westpetherwin Leader 2nd (E. 554), d Tinten Heroine 13th (E. 54), s d Tinten Leader (C. 849).

II. (£4).—GEOFFREY G. MYATT, Beechcroft, Kilmington, Axminster, Devon, **Kilmington Queen L.**, born 2nd January; s Kibbear Royal Jimmy, d Kilmington Lady L., s d Kibbear Royal Henry 2nd.

III. (£2).—R. GYNN & SON, Treslay, Boscastle, **Treslay Dimple 6th** (H. 32), born 6th January; s Tregirls Padstonian (D. 573), d Treslay Lass 9th (F. 1006), s d Hendra Sunstar (D. 5).

R.—THOMAS FREDERICK JAMES, Chantershier Farm, Norwood Hill, Horley, Surrey, **Treluckey Black Lady 51st** (H. 2), born 7th January; s Valley Muscat (G. 329), d Treluckey Black Lady 49th (G. 362), s d Valley Satisfaction 2nd (D. 673).

H.C.—G. P. MERRIFIELD, Gunabarn Farm, Summereourt, Cornwall, **Gunabarn Beauty 7th**, born 2nd January; s Carfoll 14th (C. 1113), d Gunabarn Beauty (F. 966), s d Gunabarn Sportsman (D. 29).

Silver Medal for the best Boar in the Large Black Classes.

I.—W. J. WARREN, **Kibbear Royal Prior 5th.**

R.—T. F. JAMES, **Treluckey Radio 3rd.**

Silver Medal for the best Sow in the Large Black Classes.

I.—H. E. BASTARD, **Tinten Heroine 20th.**

R.—R. GYNN & SON, **Treslay Belle 19th.**

LARGE WHITE.

(£8 towards the Prizes in these Classes and the Champion Prizes were given by the National Pig Breeders' Association)

CLASS 209.—*Large White Boar, farrowed before July 1, 1930.*
[6 entries.]

I. (£8.)—W. WHITE & SON, Poole Farm, Taunton, **Fen Bradbury 10th** (60773), born 11th January, 1927, bred by F. Land, Bourne, Lines.; s Bourne Bradbury 63rd (55901), d Bourne Bonetta 129th (156640), s d Bourne King David (36437).

II. (£5.)—DEBENHAM & TORY, Bladen Farms, Briantspuddle, Dorset, **Forest Bradbury 2nd** (64913), born 14th March, 1927, bred by Sir Ernest Debenham, Bladen Farms, Briantspuddle, Dorset; s Edmonton Bradbury 2nd (60681), d Forest Amy 11th (169618), s d Turk of Bottesford (27417).

III. (£2.)—Sir G. A. COOPER, Bart., Hursley Park, Winchester, **Farley Signal 27th**, born 3rd May, 1929; s Plain Signal 4th (61721), d Godmersham Champion Queen (169738), s d Bourne King David 30th (40543).

R.—THE WOODBOROUGH HERD, Marden Mill, near Devizes, Wiltshire, **Walton Bandmaster 33rd** (66153), born 1st July, 1927, bred by Lord Daresbury, C.V.O., Walton Hall, Warrington, Lancashire; s Walton Bandmaster 13th (53873), d Walton Primrose 50th (161588), s d Bourne King David 52nd (47549).

CLASS 210.—*Large White Boar, farrowed on or after July 1, 1930.*
[8 entries.]

I. (£7.)—WALTER WILLIAM RYMAN, Wall, near Lichfield, Staffs, **Wall Superb** (Vol. 48), born 2nd July, 1930; s Wall Superlative (Vol. 47), d Moreton Primrose 25th (190556), s d Bourne Baldwin (52255).

II. (£4.)—THE WOODBOROUGH HERD, Marden Mill, near Devizes, Wiltshire, **Woodborough Bandmaster 47th** (Vol. 48), born 1st July, 1930; s Woodborough Bandmaster 15th (Vol. 47), d Hallastone Jess 2nd (189492), s d Wentworth Bradbury 29th (62597).

III. (£2).—Lt.-Col. Sir C. W. MILES, Bart., Walton-in-Gordano, Clevedon, **Gordano Goliath 10th** (Vol. 47), born 3rd July, 1930; s Edmonton King David 120th (64833), d Gordano Beauty (169860), s d Gordano Warrior (56785).

R.—W. WHITE & SON, Poole Farm, Taunton, **Taunton Grakle** (Ear No. 175, Vol. 48), born 25th July, 1930; s Taunton Delegate 8th (1773, Vol. 47), d Taunton Increase 24th (1719, Vol. 47), s d Fen Bradbury 10th (60773).

CLASS 211.—*Large White Breeding Sow, farrowed before 1930.* [6 entries.]

I. (£8).—Sir G. A. COOPER, Bart., Hursley Park, Winchester, **Farley Bonetta 6th**, born 11th May, 1929; s Plain Signal 4th (61721), d Bourne Bonetta 26th (5016), s d Bourne Champion Boy (33091).

II. (£5).—WALTER WILLIAM RYMAN, Wall, Lichfield, Staffs, **Wall Beautiful 13th** (191630), born 24th July, 1928; s Bourne King David 12th (40515), d Wall Beautiful (161426), s d Hallstone Premier 18th (48089).

III. (£2).—W. WHITE & SON, Poole Farm, Taunton, **Taunton Champion Bonetta** (1585), Vol. 47, born 7th August, 1928; s Spalding Baron 8th (57737), d Bourne Bonetta 129th (156640), s d Bourne King David (36437).

R.—Lt.-Col. Sir C. W. MILES, Bart., Walton-in-Gordano, Clevedon, **Gordano Beauty** (169860), born 25th July, 1927; s Gordano Warrior (56785), d Bourne Beauty 52nd (145350), s d Broker of Bourne (40617).

CLASS 212.—*Large White Breeding Sow, farrowed on or after January 1, and before July 1, 1930.* [10 entries.]

I. (£7).—DEBENHAM & TORY, Bladen Farms, Briantspuddle, Dorset, **Bladen Bonetta 35th** (Vol. 48), born 15th January, 1930, bred by Sir Ernest Debenham, Bladen Farms, Briantspuddle, Dorset; s Bladen Bob (64361), d Edmonton Bonetta 31st (179652), s d Bourne King David 223rd (55959).

II. (£4).—W. WHITE & SON, Poole Farm, Taunton, **Taunton Manna 24th**, (Vol. 47), born 2nd January, 1931; s Fen Bradbury 10th (60773), d Histon Manna 22nd (180654), s d Bourne King David 198th (52377).

III. (£2).—W. W. RYMAN, Wall, Lichfield, Staffs, **Wall Matchless** (H.B. Vol. 48), born 10th January, 1930; s Bourne King David 12th (40515), d Moreton May 15th (181220), s d Bourne Baldwin (52255).

R.—DEBENHAM & TORY, **Bladen Monetta 5th** (Vol. 48), born 14th January, 1930, bred by Sir Ernest Debenham, Bladen Farms, Briantspuddle, Dorset; s Edmonton Bradbury 2nd (60681), d Bladen Monetta 3rd (178816), s d Spalding Bob 10th (53615).

CLASS 213.—*Large White Breeding Sow, farrowed after July 1, 1930.* [6 entries.]

I. (£7).—W. WHITE & SON, Poole Farm, Taunton, **Taunton Manna 3rd** (161, Vol. 48), born 1st July, 1930; s Taunton King David 3rd (62253), d Histon Manna 22nd (180654), s d Bourne King David 198th (52377).

II. (£4).—WALTER WILLIAM RYMAN, Wall, Lichfield, Staffs, **Wall Champion Queen 8th** (Vol. 48), born 2nd July, 1930; s Wall Jay 27th (66101), d Bourne Champion Queen 60th (145384), s d Bourne King David (40543).

lxxiv *Prizes awarded to Large White and Middle White Pigs.*

III. (£2.)—THE WOODBOROUGH HERD, Marden Mill, near Devizes, Wiltshire, **Woodborough Greenback 121st** (Vol. 48), born 1st July, 1930; s Bushes Long'un 2nd (68433), d Woodborough Greenback 37th (192222), s d Histon Greenback 55th (170438).

R.—DEBENHAM & TORY, Bladen Farms, Briantspuddle, Dorset, **Bladen Monetta 6th** (Vol. 48), born 11th July, 1930, bred by Sir Ernest Debenham, Bladen Farms, Briantspuddle, Dorset; s Walton Bob 12th (70187), d Bladen Monetta 3rd (178816), s d Spalding Bob 10th (53615).

CHAMPION PRIZES.

Silver Gilt Medal value £2 10s. (or cash) for the best Boar in the Large White Classes.

I.—W. W. RYMAN, **Wall Superb.**

R.—W. WHITE & SON, **Fen Bradbury 10th.**

Silver Gilt Medal value £2 10s. (or cash) for the best Sow in the Large White Classes.

I.—Sir G. A. COOPER, Bart., **Farley Bonetta 6th.**

R.—DEBENHAM & TORY, **Bladen Bonetta 35th.**

MIDDLE WHITE.

(£8 towards the Prizes in these Classes and the Champion Prizes were given by the National Pig Breeders' Association).

CLASS 214. —*Middle White Boar, farrowed before July 1, 1930.*
[6 entries.]

I. (£8.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, **Pendley Apache** (67091), born 13th January, 1927, bred by Major J. A. Morrison, Pendley Stock Farms, Tring, Herts; s Histon Woodman 28th (59057), d Whitehill Rover's Choice (155338), s d Histon Rover 48th (44581).

II. (£5.)—EDWARD MAURICE JOWITT, Broad Road Farm, Bridport, Dorset, **Norsbury Woodman 8th** (67061), born 14th September, 1927, bred by Mrs. Hayes Sadler, Roundstone Farm, Ferring, Sussex; s Norsbury Hivite (59267), d Norsbury Welcome 17th (165150), s d Norsbury Harold (50791).

III. (£2.)—LADY H. ROGER, Yockley House, near Camberley, Surrey, **Yockley Prince 2nd** (Vol. 47), born 9th July, 1929; s Salts Prince 13th (H.B. 67195), d Salts Lilac 3rd (185202), s d Wharfedale Deliverance (32575).

R.—T. H. GLADSTONE, Eastcote Grange, Hampton-in-Arden, Warwickshire, **Barston Apollo** (67433), born 4th February, 1929; s Godmersham Apollo 30th (66801), d Salts Lady Holly (165916), s d Salts Councillor (51205).

H.C.—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, **Fordon Dignity 2nd**, born 18th December, 1926, bred by Joseph F. Hicks, Wold Newton, Driffild; s Defender of Ypres (43857), d Fordon Wren 6th (163396), s d Somerden Ben (30427).

CLASS 215.—*Middle White Boar, farrowed on or after July 1, 1930.*
[5 entries.]

I. (£7.)—EDWARD MAURICE JOWITT, Broad Road Farm, Bridport, Dorset, **Burford Goliath**, born 16th July, 1930; s Norsbury Woodman 8th (67061), d Burford Jill (183510), s d Burningfold Perfection's Pride (63007).

II. (£4.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, **Shawlands Bold Boy 24th**, born 3rd July, 1931; s Shawlands Bold Boy (67965), d Mistley Grace 98th (184728), s d Hawthorn Sultan 6th (54657).

III. (£2.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, **Pendley What's Wanted**, born 1st July, 1930; s Pendley Reveller (Vol. 47), d Pendley Fuchsia 13th (Vol. 47), s d Pendley Apache (67091).

R.—LADY H. ROGER, Yockley House, near Camberley, Surrey, **Yockley Prince 4th** (Vol. 48), born 10th July, 1930; s Yockley Prince (H.B. 68077), d Compton Athara 9th (H.B. 183682), s d Compton Choice Lad 2nd (H.B. 63109).

C. T. H. GLADSTONE, Eastcote Grange, Hampton-in-Arden, Warwickshire, **Barston Illustrious 2nd** (Vol. 48), born 29th August, 1930; s Salts Illustrious (67949), d Barston Grace (174276), s d Milpond Percy (59219).

CLASS 216.—*Middle White Breeding Sow, farrowed before 1930.*
[8 entries.]

I. (£8.)—T. H. GLADSTONE, Eastcote Grange, Hampton-in-Arden, Warwickshire, **Pendley Princess 4th** (184944), born 3rd January, 1928, bred by Major J. A. Morrison, Pendley Stock Farms, Tring; s Salts Prince 7th (63787), d Whitehill Hagar 5th (143958), s d Pendley Warrior (45899).

II. (£5.)—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, **Pendley Princess 2nd** (184940), born 3rd January, 1928, bred by Major, J. A. Morrison, Pendley Stock Farms, Tring, Herts; s Salts Prince 7th (63787), d Whitehill Hagar 5th (143958), s d Pendley Warrior (45899).

III. (£2.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, **Mistley Grace 98th**, born 26th August, 1926, bred by Brig.-Gen. B. Atkinson, Mistley Hall, Manningtree, Essex; s Hawthorn Sultan 6th (54657), d Mistley Grace 41st (153256), s d Olive of Mistley (45687).

CLASS 217.—*Middle White Breeding Sow, farrowed on or after January 1, and before July 1, 1930.* [10 entries.]

I. (£7.)—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, **Shawlands Miss Dorothy 7th**, born 1st January, 1930; s Salts Deliverance 15th (59445), d Mistley Dorothy 232nd (184680), s d Hawthorn Sultan 15th (54669).

II. (£4.)—Miss R. B. BABCOCK, **Shawlands Gracious Lady 8th**, born 5th January, 1930; s Salts Deliverance 15th (59445), d Shawlands Gracious Lady (185274), s d Benjamin of Godmersham 2nd (49357).

III. (£2.)—LADY H. ROGER, Yockley House, near Camberley, Surrey, **Yockley Athara 4th** (Vol. 47), born 14th January, 1930; s Amport Ranger 3rd (Vol. 47), d Compton Athara 9th (H.B. 183682), s d Compton Choice Lad 2nd (H.B. 63109).

H.C.—WILLIAM HUGH WINN-JONES, The Knoll Sully, Glam., **Sully Bettina**, born 27th May, 1930; s Laybrook David, d Laybrook Bettina 3rd, s d Mistley Cornelius.

lxxvi *Prizes awarded to Middle White and Tamworth Pigs.*

C.—R. V. GARTON, Langbourne, Blandford, Dorset, born 28th January, 1930, bred by Mrs. Sofer Whitburn, Ampot St. Marys, Andover, Hants; s Ampot Ranger (62885), d Salts Helah 14th (177278), s d Wharncliffe Prince (32625).

CLASS 218.—*Middle White Breeding Sow, farrowed after July 1, 1930. [8 entries.]*

I. (£7).—Sir GOMER BERRY, Bart., Pendley Stock Farms, Tring, Herts, **Pendley Fuchsia 18th**, born 1st July, 1930; s Pendley Reveller (Vol. 47), d Pendley Fuchsia 13th (Vol. 47), s d Pendley Apache (67091).

II. (£4).—Miss R. B. BABCOCK, Shawlands, Lingfield, Surrey, **Shawlands Miss Graceful 10th**, born 3rd July, 1930; s Shawlands Bold Boy (67965), d Mistley Grace 98th (184728), s d Hawthorn Sultan 6th (54657).

III. (£2).—LADY H. ROGER, Yockley House, near Camberley, Surrey, **Yockley Rose 2nd** (Vol. 48), born 6th July, 1930; s Ampot Ranger 3rd (Vol. 47), d Yockley Rose (H.B. 178114), s d Mistley Karim (59243).

R.—Miss R. B. BABCOCK, **Shawlands Dorothy 59th**, born 4th July, 1930; s Shawlands Bold Boy (67965), d Shawlands Dorothy (185258), s d Woodman of Hawthorn (39751).

H.C.—R. V. GARTON, Langbourne, Blandford, Dorset, **Langbourne Medina 8th**, born 3rd July, 1930; s Langbourne Revel (67735), d Langbourne Medina 5th (186940), s d Anderson Frisky (66573).

C.—T. H. GLADSTONE, Eastcote Grange, Hampton-in-Arden, Warwickshire, **Barston Choice 7th** (Vol. 48), born 20th July, 1930; s Barston Apollo (67433), d Barston Choice 4th (Vol. 47), s d Barston Piper (62939).

CHAMPION PRIZES.

Silver Gilt Medal value £2 10s. (or cash) for the best Boar in the Middle White Classes.

I.—Sir GOMER BERRY, **Pendley Apache.**

R.—E. M. JOWITT, **Burford Goliath.**

Silver Gilt Medal value £2 10s. (or cash) for the best Sow in the Middle White Classes.

I.—T. H. GLADSTONE, **Pendley Princess 4th.**

R.—Sir GOMER BERRY, **Pendley Fuchsia.**

TAMWORTH.

CLASS 219.—*Tamworth Boar, any age. [5 entries.]*

I. (£7).—E. CLIFTON-BROWN, Burnham Grove, Burnham, Bucks, **Milton Prince 2nd**, born 20th April, 1927, bred by C. L. Coxon; s Basildon Golden Prince 7th, d Basildon Reflection 8th, s d Milton Bishop 2nd.

II. (£4).—Lt.-Col. C. J. H. WHEATLEY, Berkswell Hall, Warwickshire, **Wall Up To Date**, born 28th August, 1929, bred by W. W. Ryman, Wall, Lichfield; s Hookstile Red Start, d Whittingham Sally 4th (192532), s d Caldmore Joe (64165).

III. (£2.)—W. W. RYMAN, Wall, Lichfield, **Verzons David**, born 15th January, 1930, bred by G. F. Fenwick, The Verzons, Ledbury; s Coldfield Norman (66487), d Wall Diamond 2nd (183284), s d Hamstall Ridware (64169).

R.—W. A. BINDLEY, Woodcote Lodge, Bromsgrove, **Berkswell Red Ensign** born 25th September, 1928, bred by Lt.-Col C. J. H. Wheatley, Berkswell Hall, Berkswell; s Berkswell Red Glove (64151), d Basildon Favourite 2nd (178150), s d Knowle Duke 2nd (55567).

CLASS 220.—*Tamworth Breeding Sow, farrowed in or before 1931.*
 [5 entries.]

I. (£7.)—Lt.-Col. C. J. H. WHEATLEY, Berkswell Hall, Warwickshire, **Milton Verna 3rd**, born 31st January, 1930, bred by C. L. Coxon, Milton Pembridge, near Leominster; s Maplehurst Lucky Joe (C.R. 21622), d Dollar Verna (C.R. 22056), s d O.A.C. Defiance A. (C.R. 18059).

II. (£4.)—E. CLIFTON-BROWN, Burnham Grove, Burnham, Bucks, **Burnham Millicent**, born 8th January, 1930; s Milton Prince 2nd, d Hookstile Mercy 9th, s d Roxley Edward 3rd.

III. (£2.)—WALTER WILLIAM RYMAN, Wall, Lichfield, Staffs, **Wall Diamond 4th** (183288), born 14th March, 1928; s Hamstall Ridware (64169), d Milton Diamond (178292), s d Verzons Beefeater (55615).

CHAMPION PRIZE.

OFFERED BY THE NATIONAL PIG BREEDERS' ASSOCIATION.

A Bronze Medal for the best Animal in the Tamworth Classes.

I.—Lt.-Col. C. J. H. WHEATLEY, **Milton Verna 3rd**.

R.—E. CLIFTON-BROWN, **Milton Prince 2nd**.

GLoucestershire Old Spots.

(£16 towards the Prizes in these Classes were given by the Gloucestershire Old Spots Pig Society).

CLASS 221.—*Gloucestershire Old Spots Boar, farrowed before July 1.*
 1930. [3 entries.]

I. (£10.)—SHERRIFF & SONS, Lemsford, Welwyn Garden, Herts, **Hempstead Jim 17th** (5888), born 20th May, 1929, bred by W. T. & A. G. Bailey, Grist House, Hemel Hempstead; s Hempstead Jim 12th (5808), d Hempstead Daphne 21st (2047), s d Hempstead General (5498).

II. (£5.)—EDWARD T. WISE, Beausale, near Warwick, **Knowle Dick** (5907), born 19th March, 1930, bred by E. T. Addams-Williams, The Knowle, Monmouth; s Hempstead Jim 1st (5586), d Holmwood Beari (X. 809), s d Thornbury Buffalo.

III. (£2.)—S. C. FLOOK, Tynings Farm, Codrington, Chipping Sodbury, **Tynning Roger** (5909), born 25th September, 1929; s Knowle Joe 2nd (5827), d Holmwood Stream (X. 891), s d Thornbury Buffalo.

lxxviii *Prizes awarded to Gloucestershire Old Spots Pigs.*

CLASS 222.—*Gloucestershire Old Spots Boar, farrowed on or after July 1, 1930.* [1 entry.]

I. (£7.)—SHERRIFF & SONS, Lemsford, Welwyn Garden, Herts, **Nashes Duke 18th** (5932), born 5th July, 1930; s Hempstead Spot (5619), d Nashes Duchess 40th (Z. 278), s d Eastacott Defiance.

CLASS 223.—*Gloucestershire Old Spots Breeding Sow, farrowed before 1930.* [3 entries.]

I. (£10.)—SHERRIFF & SONS, Lemsford Welwyn Garden, Herts, **Nashes Duchess 44th** (Z. 439), born 1st January, 1929; s Hempstead Spot (5619), d Nashes Duchess 40th (Z. 279), s d Eastacott Defiance (5607).

II. (£5.)—S. C. FLOOK, Tynings Farm, Codrington, Chipping Sodbury, **Tyning Cream 3rd** (Z. 513), born 7th September, 1929; s Knowle Joe 2nd (5827), d Holmwood Cream 3rd (Z. 183), s d Maiden Bradley Doctor (5413).

III. (£2.)—BENNETT & HOWARD, Quarry Farm, Thornbury, Bristol, **Oaklands Bargain**, born 30th May, 1929, bred by H. C. Baker, Oaklands, Almondsbury, Bristol; s Holmwood Lilywhite (5650), d Oaklands Josephine (X. 787), s d Holmwood Roger (5540).

CLASS 224.—*Gloucestershire Old Spots Breeding Sow, farrowed in 1930.* [4 entries.]

I. (£7.) F. G. BELL, Huntingford Farm, Charfield, Glos., **Huntingford Ruby 2nd**, born 12th July; s Buckover Knight (582), d Huntingford Countess 4th (15538), s d Ithells Major 2nd (2084).

II. (£4.) SHERRIFF & SONS, Lemsford, Welwyn Garden, Herts, **Nashes Duchess 50th** (Z. 632), born 4th May; s Pevensy Hero 1st (5820), d Nashes Duchess 44th (Z. 439), s d Hempstead Spot (5619).

III. (£2.)—F. G. BELL, **Huntingford Ruby**, born 12th July; s Buckover Knight (582), d Huntingford Countess 4th (15538), s d Ithells Major 2nd (2084)

CLASS 225.—*Pair of Gloucestershire Old Spots Breeding Sows, farrowed in 1931.* [2 entries.]

I. (£7.) SHERRIFF & SONS, Lemsford, Welwyn Garden, Herts, **Nashes Duchess 51st and 52nd** (Z. 633 and Z. 634), born 2nd January; s Pevensy Hero 1st (5820), d Nashes Duchess 44th (Z. 439), s d Hempstead Spot (5619).

II. (£4.)—S. C. FLOOK, Tynings Farm, Codrington, Chipping Sodbury, **Tyning Stream 3 and 4**, born 5th February; s Tyning Bradley II. (5884), d Tyning Stream II. (25707), s d Eartnecott Prince (5673).

CHAMPION PRIZES.

GIVEN THROUGH THE GLOUCESTERSHIRE OLD SPOTS PIG SOCIETY.
The Sir George Watson Challenge Cup, value £21, for the best Animal in the Gloucestershire Old Spots Classes. (The Cup to be won three times by the same Exhibitor with different Animals before becoming his own property).

I.—SHERRIFF & SONS, **Nashes Duke 18th.**

R.—SHERRIFF & SONS, **Nashes Duchess 44th.**

GIVEN BY MESSRS. BENNETT AND HOWARD.

*The Sir John Anderson Cup for the best Sow in the Gloucestershire
Old Spots Classes. (The Cup to be won three times by the same
Exhibitor before becoming his own property).*

I.—SHERRIFF & SONS, Nashes Duchess 44th.

R.—F. G. BELL, Huntingford Ruby 2nd.

WESSEX SADDLEBACK.

(£8 towards the Prizes in these Classes and the Silver Medals are given by the National Pig Breeders' Association, and all Pigs exhibited must have been entered or eligible for entry in the Herd Book).

CLASS 226.—*Wessex Saddleback Boar, farrowed before July 1, 1930.*
[3 entries.]

I. (£8.)—DR. WILLIAM H. FORSHAW, Slythhurst, Ewhurst, Guildford, Surrey, **Carlos of Slythhurst** (3024), born 8th January, 1927, bred by Oswald Ellis, Bramley, Surrey; s Slythhurst Prince Charlie (2713), d Shillinglee Heroine 2nd (9078), s d Norman of Shillinglee (1286).

II. (£5.)—HUGH LONSDALE BROOKSBANK, Sandrock, Tickhill, W. Yorks, **Preston Odin** (3369), born 3rd January, 1930, bred by D. Vickers, Temple Dinsley, Hitchin; s Yarty Monarch 3rd (3282), d Preston Orchid 4th (14316), s d Preston Senator 2nd (2766).

III. (£2.)—G. R. SOUTHWELL, Holbury Farm, Lockerley, Romsey, Hants, **Forest Master** (3358), born 8th September, 1929, bred by J. R. Burge, Ithen Abbas, Winchester, Hants; s Godalming Master (3307), d Forest Prim (15279), s d Oakley Factor (2058).

CLASS 227.—*Wessex Saddleback Boar, farrowed on or after July 1, 1930.* [5 entries.]

I. (£7.)—DR. WILLIAM H. FORSHAW, Slythhurst, Ewhurst, Guildford, Surrey, **Slythhurst Cashier** (3416), born 1st July, 1930; s Carlos of Slythhurst (3024), d Slythhurst Charmaine (14710), s d Slythhurst Bar None (2336).

II. (£4.)—GEORGE A. COLE, Sidbury Mills, Sidmouth, **Sid-Vale Rover** (3426), born 10th July, 1930; s Chellaston Gone Away (3159), d Preston Surprise 1st (14431), s d Oakley Prior (1678).

III. (£2.)—MAJOR A. R. WHITTINGTON, Yarty, Axminster, Devon, **Chellaston Royal Son** (3449), born 25th July, 1930, bred by F. W. Gilbert, Chellaston Manor, Derby; s Yarty Monarch 3rd (3282), d Preston Druidess (15175), s d Brandon Tomahawk 2nd (2879).

R.—R. B. TAYLOR & SONS, Sockhill, Mudford, near Yeovil, **Sockhill Caesar 2nd**, born 25th September, 1930; s Pearash Sockhill (3148), d Ashill Connie 2nd (15144).

CLASS 228.—*Wessex Saddleback Breeding Sow, farrowed before 1930.*
[7 entries.]

I. (£8.)—HUGH LONSDALE BROOKSBANK, Sandrock, Tickhill, W. Yorks, **Sandrock Star** (14376), born 14th August, 1926; s Welwyn Rufus (2502), d Ashe Star 5th (12029), s d Ashe Mac 2nd (680).

II. (£5.)—G. R. SOUTHWELL, Holbury Farm, Lockerley, Romsey, Hants, **Holbury Edie** (15240), born 6th January, 1929; s Awebridge Standard (2646), d Holbury Eclipse (14735), s d Holbury Lagonda (2444).

III. (£2.)—DR. WILLIAM H. FORSHAW, Slythhurst, Ewhurst, Guildford, Surrey, **Slythhurst Carman** (15430), born 2nd July, 1929; s Carlos of Slythhurst (3024), d Slythhurst Charmaine (14710), s d Slythhurst Bar None (2336).

R.—G. R. SOUTHWELL, **Holbury Early Morn** (14731), born 6th January, 1928; s Awebridge Standard (2646), d Holbury Sylvia (6401), s d Norman Perfection (660).

H.C.—GEORGE A. COLE, Sidbury Mills, Sidmouth, **Preston Safrida** (15200), born 4th July, 1928, bred by Douglas Vickers, Castle Farm, Preston, Hitchin; s Brandon Tomahawk 2nd (2879), d Preston Saffron (14434), s d Oakley Prior (1678).—J. CRUMPLER & SONS, Longlands, North Coker, Yeovil, **Coker Countess 3rd**, born 1st February, 1926; s Pearash Bobby (1967), d Coker Countess (9212).

CLASS 229.—*Wessex Saddleback Breeding Sow, farrowed in 1930.*
[8 entries.]

I. (£7.)—G. R. SOUTHWELL, Holbury Farm, Lockerley, Romsey, Hants, **Holbury Eve** (15520), born 10th January; s Norman Duke (3235), d Holbury Eclipse (14735), s d Holbury Lagonda (2444).

II. (£4.)—Major A. R. WHITTINGTON, Yarty, Axminster, Devon, **Yarty Daisy 16th** (15638), born 7th January; s Rookshill Rex (3260), d Yarty Daisy 5th (11785), s d Yarty Prince 2nd (1301).

III. (£2.)—HUGH LONSDALE BROOKSBANK, Sandrock, Tickhill, W. Yorks, **Sandrock Gift**, born 12th January; s Pipers Barbarian (3147), d Slythhurst Gift (14974), s d Bar of Slythhurst (2976).

R.—DR. WILLIAM H. FORSHAW, Slythhurst, Ewhurst, Guildford, Surrey, **Slinfold Charity** (15673), born 5th March, bred by Major E. F. St. John, Slinfold Lodge, Horsham; s Slythhurst Charles (3239), d Smokey of Slinfold (14564), s d Cattistock Mighty Atom (2355).

V.H.C.—J. CRUMPLER & SONS, Longlands, North Coker, Yeovil, **Coker Marionette**, born 4th June; s Godalming Masterpiece 2nd (3243), d Coker Mary (13227).

CLASS 230.—*Wessex Saddleback Breeding Sow, farrowed in 1931.*
[3 entries.]

I. (£7.)—J. CRUMPLER & SONS, Longlands, North Coker, Yeovil, **Coker Syrup**, born 2nd January; s Godalming Masterpiece 2nd (3243), d Coker Syrilla (14845).

II. (£4.)—G. R. SOUTHWELL, Holbury Farm, Lockerley, Romsey, Hants, **Holbury Roma** (15853), born 6th January; s Sockhill Soldier (3313), d Holbury Rowena (15248), s d Awebridge Standard (2646).

*Prizes awarded to Wessex Saddleback and National
Long White Lop-Eared Pigs.* lxxxi

R.—G. R. SOUTHWELL, **Holbury Rosa** (15854), born 6th January ; s Sockhill Soldier (3313), d Holbury Rowena (15248), s d Awebridge Standard (2646).

*Silver Gilt Medal (value £2 10s.) for the best Boar exhibited in the
Wessex Saddleback Classes.*

I.—Dr. W. H. FORSHAW, **Carlos of Slythehurst.**

R.—H. L. BROOKSBANK, **Preston Odin.**

*Silver Gilt Medal (value £2 10s.) for the best Sow exhibited in the
Wessex Saddleback Classes.*

I.—H. L. BROOKSBANK, **Sandroek Star.**

R.—G. R. SOUTHWELL, **Holbury Edie.**

NATIONAL LONG WHITE LOP-EARED.

(£5 towards the Prizes in these Classes and the Silver Medals were given by the National Long White Lop-Eared Pig Society and all Pigs exhibited must have been registered previous to entry).

CLASS 231.—*Long White Lop-Eared Boar, farrowed before July 1,
1930.* [3 entries.]

I. (£8.)—W. H. NEAL, Walreddon Farm, Tavistock, **Yealmpstone Gay Boy 3rd**, born 17th May, 1929 ; s Yealmpstone Gay Boy 2nd, d Yealmpstone Vanity 2nd.

II. (£5.)—G. H. EUSTICE, Bezurrell, Gwinear, Hayle, **Afton Gay Boy** (1122), born 15th January, 1926, bred by Pearse & Sons, Afton, Totnes ; s Yealmpstone Sunday (958), d Coryton Beauty (2663).

III. (£2.)—MARSHALL BROS., Paramount, Ivybridge, **Paramount Superior 2nd** (2194), born 4th January, 1930 ; s Devonshire Ladder, d Colwell Princess.

CLASS 232.—*Long White Lop-Eared Boar, farrowed on or after
July 1, 1930.* [4 entries.]

I. (£7.)—HENRY J. KINGWELL, Great Aish, South Brent, S. Devon, **Devonshire H. J. K.**, born 2nd July, 1930 ; s Devonshire Ladder (1880), d Devonshire Duchess 61st (4853), s d Yealmpstone Sunday (958).

II. (£4.)—W. H. NEAL, Walreddon Farm, Tavistock, **Yealmpstone Prince 3rd**, born 3rd July, 1930 ; s Devonshire Sportsman, d Godwell Beauty 8th.

III. (£2.)—G. H. EUSTICE, Bezurrell, Gwinear, Hayle, **Bezurrell Bacon Boy 20th** (2284), born 3rd July, 1930 ; s Afton Gay Boy (1122), d Bezurrell Mona (5573).

CLASS 233.—*Long White Lop-Eared Breeding Sow, farrowed before
1930.* [5 entries.]

I. (£8.)—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset, **Preston Rhoda 1st**, born 21st August, 1928 ; s Lumburn Millman (1194), d Devonshire Lass 1st (5425), s d Yealmpstone Sunday (958).

II. (£5.)—MARSHALL BROS., Paramount, Ivybridge, **Colwell Beauty** (5361), born 2nd March, 1927, bred by W. Down, Colwell Farm, Egguckland.

lxxxii *Prizes awarded to National Long White Lop-Eared Pigs.*

III. (£2.)—W. H. NEAL, Walreddon Farm, Tavistock, **Larcombe Butterfly 1st**, born 3rd January, 1928, bred by Mrs. Baker, Larcombe, Blackawton; s Ipplepen Don, d Godwell Butterfly 7th, s d Yealmpstone Ben 3rd.

R.—G. H. EUSTICE, Bezurrell, Gwinear, Hayle, **Bezurrell Mira 2nd** (5235), born 9th January, 1927; s Afton Gay Boy (1122), d Bezurrell Mira (4097).

CLASS 234.—*Long White Lop-Eared Breeding Sow, farrowed in 1930.* [4 entries.]

I. (£7.)—MARSHALL BROS., Paramount, Ivybridge, **Paramount Princess 5th** (6305), born 4th January; s Devonshire Ladder (1880), d Colwell Princess 5th.

II. (£4.)—G. H. EUSTICE, Bezurrell, Gwinear, Hayle, **Bezurrell Mona 6th** (6307), born 4th January; s Afton Baron (1604), d Bezurrell Mona (5573).

III. (£2.)—W. H. NEAL, Walreddon Farm, Tavistock, **Yealmpstone Dainty**, born 17th January; s Wooda Masterpiece 2nd, d Larcombe Butterfly 3rd.

R.—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset, born 22nd July; s Bezurrell Baron, d Preston Rhoda 1st, s d Lumburn Millman.

CLASS 235.—*Long White Lop-Eared Breeding Sow, farrowed in 1931.* [5 entries.]

I. (£7.)—MARSHALL BROS., Paramount, Ivybridge, **Paramount Princess 6th** (6749), born 3rd January; s Paramount Superior 2nd (2194), d Colwell Beauty.

II. (£4.)—G. H. EUSTICE, Bezurrell, Gwinear, Hayle, **Bezurrell Alacrity 14th** (6741), born 3rd January; s Priory Milkman (2078), d Bezurrell Alacrity (5851).

III. (£2.)—W. H. NEAL, Walreddon Farm, Tavistock, **Yealmpstone Beauty 2nd**, born 15th January; s Yealmpstone Gay Boy 3rd, d Godwell Beauty 8th.

R.—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset, born 11th January; s Bezurrell Baron, d Preston Rhoda 1st, s d Lumburn Millman.

Silver Medal for the best Exhibit in Classes 231 or 232.

I.—W. H. NEAL, **Yealmpstone Gay Boy 3rd.**

R.—H. J. KINGWELL, **Devonshire H. J. K.**

Silver Medal for the best Exhibit in Classes 233 to 235.

I.—Capt. D. M. WILLS, **Preston Rhoda 1st.**

R.—MARSHALL BROS., **Paramount Princess 5th.**

CHAMPION PRIZE.

GIVEN BY THE RIGHT HON. THE LORD MILDMAY OF FLETE.

A Silver Cup for the best Pig exhibited in Classes 231 to 235. (The Cup to be won twice by the same exhibitor before becoming his absolute property).

I.—Capt. D. M. WILLS, **Preston Rhoda 1st.**

R.—W. H. NEAL, **Yealmpstone Gay Boy 3rd.**

BACON PIGS AND PORKERS.

(Classes 236 and 237. Cancelled through insufficiency of entries).

PRODUCE.

CIDER.

(Open to Growers and Makers for Cider made from the juice of apples grown in Great Britain).

CLASS 238.—*Novice Class. Cask of Cider made in 1930 by an Exhibitor who had not previously taken a first prize in any public exhibition.* [12 entries.]

I. (£5.)—DARTINGTON HALL (LD.).

II. (£3.)—S. W. GOLLEDGE.

III. (£2.)—W. M. TURNER.

R.—W. H. DAWE.

H.C.—S. J. SHEPPY.

CLASS 239.—*Cask of Cider made in 1930 by an Exhibitor whose main occupation is farming.* [21 entries.]

I. (£5.)—F. H. REA.

II. (£3.)—G. J. TATCHELL.

III. (£2.)—S. J. SHEPPY.

R.—H. C. HANCOCK.

H.C.—W. H. DAWE.

C.—S. W. GOLLEDGE.

CLASS 240.—*Cask of Cider, made in 1930, of a specific gravity not exceeding 1.015 at 60 deg. Fahr.* [13 entries.]

I. (£5.)—PULLIN BROS.

II. (£3.)—WICKWAR CIDER CO. (LD.).

III. (£2.)—D. J. CROFTS.

R.—W. M. TURNER.

CLASS 241.—*6 Quart Bottles of Cider, made in 1930, of a specific gravity not exceeding 1.015 at 60 deg. Fahr.* [14 entries.]

I. (£5.)—PULLIN BROS.

II. (£3.)—M. J. PEARCE.

III. (£2.)—H. W. DAVIS.

R.—MITCHELL, TOMS & CO. (LD.).

H.C.—WICKWAR CIDER CO. (LD.).

CLASS 242.—*Cask of Cider, made in 1930.* [19 entries.]

I. (£5.)—G. J. TATCHELL.

II. (£3.)—WICKWAR CIDER CO. (LD.).

III. (£2.)—PULLIN BROS.

R.—H. W. DAVIS.

H.C.—A. FORD.

CLASS 243.—*6 Quart Bottles of Cider, made in 1930.* [30 entries.]

I. (£5.)—H. W. DAVIS.

II. (£3.)—PULLIN BROS.

III. (£2.)—C. J. COOK.

R.—F. H. REA.

H.C.—H. C. DAVIS.—G. J. TATCHELL.—WICKWAR CIDER CO. (LD.).

CLASS 244.—*6 Quart Bottles of Cider, made in any year previous to 1930.* [10 entries.]

I. (£5.)—WICKWAR CIDER CO. (LD.).

II. (£3.)—F. H. REA.

III. (£2.)—A. FORD.

R.—H. W. DAVIS.

(The Prizes in Class 245 were given by the Somerset County Agricultural Education Committee).

CLASS 245.—*6 Quart Bottles of Cider, made in 1930 by a Student who had received instruction in cider making provided by the Somerset County Council.* [15 entries.]

I. (£3.)—C. J. COOK.

II. (£2.)—G. J. TATCHELL.

III. (£1.)—K. C. HELYAR.

R.—H. C. DAVIS.

H.C.—H. W. DAVIS.—R. J. J. DENNING.

CHEESE.

(These Classes were not open to Professional Teachers).

CLASS 246.—*Three Cheddar Cheeses (not less than 56lbs. each) made in 1930.* [26 entries.]

I. (£15.)—A. H. HUNT.

II. (£10.)—S. T. WHITE.

III. (£5.)—T. DURDEN.

R.—W. J. EMERY.

V.H.C.—F. G. NURSE & SONS.—OSBORNE & SONS.

H.C.—S. D. TUCKER & SONS.—S. WHITE.—S. R. DYKE.

C.—W. H. COLLINS.—C. GAY & SON.

CLASS 247.—*Three Cheddar Cheeses (not over 56lbs. each), made in 1930 by an Exhibitor who had not previously taken a prize at the Bath and West Show.* [10 entries.]

- I. (£5.)—A. H. HUNT.
- II. (£3.)—B. H. J. W. WHITE.
- III. (£2.)—W. J. EMERY.
- R.—C. M. HALLETT.
- H.C.—T. R. PERRETT.
- C.—OSBORNE & SONS.

CLASS 248.—*Three Cheddar Cheeses (not over 56lbs. each), made in 1930.* [11 entries.]

- I. (£10.)—A. H. HUNT.
- II. (£7.)—C. M. HALLETT.
- III. (£4.)—W. H. COLLINS.
- R.—S. T. WHITE.
- V.H.C.—B. CHINN.
- H.C.—S. WHITE.
- C.—F. PORTCH.

CLASS 249.—*Four Loaf or other Truckle Cheddar Cheeses, made in 1930.* [9 entries.]

- I. (£5.)—A. H. HUNT.
- II. (£3.)—W. H. COLLINS.
- III. (£2.)—C. M. HALLETT.
- R.—F. PORTCH.
- V.H.C.—S. T. WHITE.

CLASS 250.—*Three Caerphilly Cheeses, made in 1931.* [10 entries.]

- I. (£5.)—T. WILKINS.
- II. (£3.)—CHEDDAR VALLEY DAIRY CO. (LD.).
- III. (£2.)—A. H. CHAMPION.
- R.—T. R. PERRETT.
- H.C.—C. RUSSELL.
- C.—S. J. COLLINGS.

(The Prizes in Class 251 were given by the Somerset County Agricultural Education Committee).

CLASS 251.—*Two Cheddar Cheeses (over 50lbs. each) made in 1930 by a Student who had received instruction in cheese making provided by the Somerset County Council.* [7 entries.]

- I. (£5.)—Miss O. BRISTER.
- II. (£3.)—G. W. DUCKETT.
- III. (£2.)—T. R. PERRETT.
- R.—Miss B. TILLEY.

CREAM CHEESE, BUTTER AND CREAM.

(These Classes were not open to Professional Teachers).

CLASS 252.—*Three Cream Cheeses.* [10 entries.]

- I. (£3.)—Mrs. H. CROSBY.
- II. (£2.)—Miss L. M. MITCHELL.
- III. (£1.)—Hon. Mrs. COLBORNE-VIVIAN.
- R.—R. NEVILLE GRENVILLE.

CLASS 253.—*2lbs. of Fresh (or very slightly salted) Butter.* [24 entries.]

- I. (£4.)—Mrs. A. REYNOLDS.
- II. (£3.)—J. NORTHCOTT.
- III. (£2.)—Miss W. M. REYNOLDS.
- IV. (£1.)—Mrs. J. WAY.
- R.—Mrs. G. BLACKLER.
- V.H.C.—Mrs. A. G. DENNIS. —Capt. L. LEARMOUTH. —Mrs. S. VANSTONE. —Miss M. M. VARKER.

CLASS 254. *2lbs. of Butter, in the making of which no salt had been used, judged on the last day of the Show.* [17 entries.]

- I. (£4.) Mrs. J. WAY.
- II. (£3.)—Miss M. M. VARKER.
- III. (£2.) Capt. L. LEARMOUTH.
- IV. (£1.)—Mrs. G. BLACKLER.
- R.—Miss W. M. REYNOLDS.

CLASS 255. *12lbs. of Keeping Butter, in a jar or crock, delivered to the Secretary 4 weeks before the Show.* [9 entries.]

- I. (£5.)—J. NORTHCOTT.
- II. (£4.)—Mrs. J. WAY.
- III. (£3.)—Mrs. T. HENDY.
- R.—Mrs. A. REYNOLDS.
- V.H.C.—Mrs. A. G. DENNIS.—Mrs. M. HEYWOOD. —R. NEVILLE GRENVILLE.

CLASS 256. *Four half-pounds of Scalded Cream.* [10 entries.]

- I. (£3.)—Mrs. J. H. SPEAR.
- II. (£2.) ROBERTSON & BARNES.
- III. (£1.)—W. WHITE & SON.
- R.—W. WHITE & SON.
- V.H.C.—Mrs. W. R. BEER. J. NORTHCOTT. —Mrs. F. VICARY.

CLASS 257.—*Collection of Farm Produce from a Holding not exceeding 50 acres, including 1lb. Butter, 1lb. Clotted Cream, and 1 Dozen Eggs. (The exhibits in this Class must have been sent by post).* [4 entries.]

- I. (£2.)—Miss M. M. VARKER.
- II. (£1.)—Mrs. W. H. HUTCHINGS.
- R.—Miss E. M. TRICKEY.

COMPETITIONS.

BUTTER-MAKING.

(No Winner of a First Prize given by this Society for Butter-making during the last 3 years was eligible to compete in Classes 258 or 259).

CLASS 258.—*For Competitors who had not previously won a prize for Butter-making at the London Dairy, the Royal or Bath and West Shows. On the 1st day of the Show. [20 entries.]*

I. (£4.)—Miss V. M. FERRIS.

II. (£3.)—Miss P. E. PEER.

III. (£1 10s.)—Mrs. J. MOGFORD.

IV. (£1.)—Miss F. M. COOKE.

R.—Miss W. M. SWEETLAND.

V.H.C.—Miss S. A. T. OSBORNE.—Miss L. SMITH.

H.C.—Miss E. TUCKER.

C.—Miss K. COLWILL.

CLASS 259.—*For Students who had been through a course of instruction in Butter-making at any County Council School, and who had not previously won a first or second prize for Butter-making at the London Dairy, Royal or Bath and West Shows. On the 2nd day of the Show. [20 entries.]*

I. (£4.)—Mrs. J. MOGFORD.

II. (£3.)—Miss L. SMITH.

III. (£1 10s.)—Miss W. M. SWEETLAND.

IV. (£1.)—Miss E. M. PRITCHARD.

CLASS 260.—*For Men and Women. On the 3rd day of the Show. [20 entries.]*

I. (£4.)—Miss P. E. PEER.

II. (£3.)—Miss J. B. WORTH.

III. (£1 10s.)—Mrs. J. MOGFORD.

IV. (£1.)—Miss M. ROUNSEVELL.

R.—Miss I. MARSHALL.

V.H.C.—Miss E. M. PRITCHARD.—Miss M. VOYSEY.—Miss F. YEOMANS.

H.C.—Miss E. HOLLOWAY.—Miss L. SMITH.—Miss E. TUCKER.

C.—Miss E. MATTINSON.

lxxxviii Prizes awarded for Butter-Making, Junket Making and Shoeing.

CLASS 261.—*For Winners of First and Second Prizes in the Butter-making Classes 258 to 260, or at any previous meeting of the Society. On the 4th day of the Show. [15 entries.]*

I. (Gold Medal).—Miss M. ROUNSEVELL.

II. (Silver Medal).—Miss H. E. MITCHELL.

III. (Bronze Medal).—Miss R. HANCOCK.

R.—Miss E. HOLLOWAY.

V.H.C.—Mrs. J. MOGFORD.

H.C.—Miss K. DAVIS.—Miss F. L. WATTS.

C.—Miss P. E. PEER.

JUNKET MAKING.

CLASS 262.—*The Best Junket made from 1 quart of milk. On the 3rd day of the Show. [25 entries.]*

I. (£2).—Miss J. B. WORTH.

II. (£1).—Miss L. SMITH.

III. (10s.).—Miss E. M. AYRE.

IV. Miss V. VENNER.

R.—Miss C. B. COOKE.

V.H.C.—Miss M. ROUNSEVELL.—Miss M. E. SMITH.

H.C.—Mrs. J. W. PANTALL.—Miss P. E. PEER.

C.—Miss E. MATTINSON.—Miss H. M. MILES.

SHOEING.

(Special Novice Prizes of £3, £2 and £1 were offered in Classes 263 and 264 to men who had never previously won a prize of the value of £2 and over).

CLASS 263.—*For Agricultural Horse Shoeing by Smiths. On the 2nd day of the Show. [16 entries.]*

I. (£4).—J. P. PRINT, A.F.C.L.

II. (£3).—A. THOMAS, A.F.C.L.

III. (£2).—J. DAVIES, A.F.C.L. (Carmarthen).

IV. (£1).—T. LEWIS, A.F.C.L.

R.—J. JONES, R.S.S.

V.H.C.—J. VANSTONE, A.F.C.L.

H.C.—J. DAVIES (Mountain Ash).

C.—H. B. WELLAND, R.S.S.

I. Novice (£3).—A. PALMER.

II. Novice (£2).—S. SEAMAN.

III. Novice (£1).—J. MILTON.

CLASS 264.—*For Hunter Shoeing by Smiths. On the 3rd day of the Show.* [12 entries.]

I. (£4)—T. LEWIS, A.F.C.L.

II. (£3.)—J. DAVIES, A.F.C.L. (Carmarthen).

III. (£2.)—A. THOMAS, A.F.C.L.

IV. (£1.)—J. VANSTONE, A.F.C.L.

R.—T. REES.

V.H.C.—H. L. WELLAND.

H.C.—J. P. PRINT, A.F.C.L.

C.—J. DAVIES (Mountain Ash).

I. Novice (£3.)—T. LEWIS, A.F.C.L.

CLASS 265.—*For Shoemaking or Turning by Smiths. On the 4th day of the Show.* [11 entries.]

I. (£4.)—A. THOMAS, A.F.C.L.

II. (£3.)—J. DAVIES, A.F.C.L. (Carmarthen).

III. (£2.)—J. VANSTONE, A.F.C.L.

IV. (£1.)—T. REES.

R.—J. P. PRINT, A.F.C.L.

H.C.—J. DAVIES (Mountain Ash).

C.—J. JONES, R.S.S.

GIVEN BY THE NATIONAL HORSE ASSOCIATION OF
GREAT BRITAIN.

Silver Medal for the Competitor gaining the most marks for the best Fitted Shoe in Classes 263 and 264.

I.—A. THOMAS, A.F.C.L.

CHAMPION PRIZES.

“*The Capewell Challenge Cup*,” given by the Capewell Horse Nail Co. (Ltd.) for the best Competitor in Class 263. *The Cup to be won 3 years in succession or 4 times in all before becoming the absolute property of the winner.*

I.—J. P. PRINT, A.F.C.L.

Gold Medal given by Messrs. Godwin, Warren and Co. (Ltd.) Bristol, for the Best Competitor in Class 264.

I.—T. LEWIS, A.F.C.L.

An All-Bright “Godwin” Shoe Turning Hammer, given by Messrs. Godwin, Warren and Co., for the Best Competitor in Class 265.

I.—A. THOMAS, A.F.C.L.

SHEARING.

(The Prizes in Class 266 were given by the Bristol Local Committee).

CLASS 266. — *Best Shearing of 2 Sheep and Tying of the Fleeces by Competitors 50 years of age and over.* [15 entries.]

- I. (£3.)—H. J. MOSS, Regil Winford.
- II. (£2.)—T. POULTNEY, Congresbury.
- III. (£1.)—O. POULTNEY, Congresbury.
- R.—F. HORLER, Street End, Blagdon.
- H.C.—T. SAMPSON, Dundry.
- C.—T. HARTNELL, 4, Rosebery Avenue, Ashley Vale, Bristol.

SPLICING AND KNOTTING.

(The Prizes in these Classes were given by the Bristol Local Committee).

CLASS 267.—*The best long Splice in a 2-inch Manilla Rope without tools and the best short Splice in a 1½-inch Rope. ditto, ditto, spliced in ¾ hour.* [6 entries.]

- I. (£2.)—L. B. PITCHFORK, 9, Stirling Road, Brislington.
- II. (£1 10s.)—G. W. POTTER, 15, Pempole Avenue, Shirehampton.
- III. (£1.)—G. F. LUKER, 8, Sunrise Grove, Cuffington Avenue, Brislington.

CLASS 268.—*For Sea Scouts from 11 to 18 years of age, under the Conditions stated.* [6 entries.]

- I. (£1 10s.)—W. WATKINS, 99th Bristol Sea Scouts.
- II. (£1.)—R. WEEKS, Cabot Troop, 99th Bristol Sea Scouts.
- III. (10s.)—R. HAINES, 99th Bristol Sea Scouts.

CLASS 269.—*For Rover Scouts over 18 years of age, under the Conditions stated.* [7 entries.]

- I. (£1 10s.)—F. C. JEFFREY, 17, Queen Square, Bristol.
- II. (£1.)—R. STOCK, Cabot Troop, 99th Bristol Sea Scouts.
- Equal III. (5s.)—W. CANN, Cabot Troop, 99th Bristol Sea Scouts and W. H. JEFFREY, 17, Queen Square, Bristol.

POULTRY.

(UNDER POULTRY CLUB RULES).

(The Birds in Classes I to 45 and 56 to 67 must have been hatched previous to January 1st, 1931).

CLASS I.—ANY DISTINCT BREED, COCK AND 2 HENS, THE PROPERTY OF ONE EXHIBITOR. [11 entries.]

I. (£3.)—H. GUNN. *White Wyandottes*.

II. (£2.)—SIR GOMER BERRY, Bart.

III. (£1.)—J. H. BAKER & SON, *Indian Game*.

R.—J. A. DEWAR.

V.H.C.—MRS. E. MILLS.

H.C.—W. MORGAN, *Plymouth Rocks*.

C.—J. S. APPLETON, *Gold Campines*.

CLASS 2.—PLYMOUTH ROCK (BARRED), COCK. [11 entries.]

I. (£1 10s.)—MRS NORMAN GRANT.

II. (£1.)—PENPRASE BROS.

III. (10s.)—MRS. W. W. W. BUTT.

R.—C. CURZON.

V.H.C.—W. COURT.

H.C.—W. COURT.

C.—S. LAKE.

CLASS 3.—PLYMOUTH ROCK (BARRED), HEN. [14 entries.]

I. (£1 10s.)—MRS. W. W. W. BUTT.

II. (£1.)—R. N. PALMER.

III. (10s.)—MRS. NORMAN GRANT.

R.—MRS. W. W. W. BUTT.

V.H.C.—PENPRASE BROS.

H.C.—W. H. BREWER.

C.—W. COURT.

CLASS 4.—PLYMOUTH ROCK (ANY OTHER VARIETY), COCK. [9 entries.]

I. (£1 10s.)—MRS. W. W. W. BUTT.

II. (£1.)—N. M. GRANT.

III. (10s.)—R. N. PALMER.

R.—CAPT. H. P. LESCHALLAS.

V.H.C.—H. J. SCREECH.

H.C.—MRS. DREDGE.

C.—J. H. NORMAN.

CLASS 5.—PLYMOUTH ROCK (ANY OTHER VARIETY), HEN.
[9 entries.]

- I. (£1 10s.)**—R. N. PALMER.
II. (£1.)—Mrs. W. W. W. BUTT.
III. (10s.)—H. SPENCELEY.
R.—W. H. BREWER.
V.H.C.—N. M. GRANT.
H.C.—Capt. H. P. LESCHALLAS.
C.—J. LIPPIATT.

CLASS 6.—ORPINGTON (ANY VARIETY), COCK. [7 entries.]

- I. (£1 10s.)**—W. H. COOK.
II. (£1.)—W. HODGES.
III. (10s.)—H. WHITLEY.
R.—T. C. PINNIGER.
V.H.C.—J. HARRINGTON.
H.C.—H. WHITLEY.
C.—G. ROGERS.

CLASS 7.—ORPINGTON (ANY VARIETY), HEN. [8 entries.]

- I. (£1 10s.)**—W. H. COOK.
II. (£1.)—H. WHITLEY.
III. (10s.)—T. C. PINNIGER.
R.—W. HODGES.
V.H.C.—J. H. BAKER & SON.
H.C.—W. BALMENT.
C.—LESLIE H. BACCHUS.

CLASS 8.—BARNVELDER, COCK. [3 entries.]

- I. (£1 10s.)**—N. M. GRANT.
II. (£1.)—W. A. SLOCOCK.
R.—F. R. MULES.

CLASS 9.—BARNVELDER, HEN. [4 entries.]

- I. (£1 10s.)**—N. M. GRANT.
II. (£1.)—Mrs. E. K. STAINES.
R.—W. A. SLOCOCK.

CLASS 10.—RHODE ISLAND RED, COCK. [8 entries.]

- I. (£1 10s.)**—Miss M. BROCKINGTON.
II. (£1.)—M. P. NOTLEY.
III. (10s.)—Capt. Hon. C. K. GREENWAY.
R.—M. P. NOTLEY.
V.H.C.—J. H. BAKER & SON.
C.—H. BROOM.

CLASS 11.—RHODE ISLAND RED, HEN. [5 entries.]

- I. (£1 10s.)—J. H. BAKER & SON.
- II. (£1.)—Capt. Hon. C. K. GREENWAY.
- R.—A. J. MAJOR.
- V.H.C.—Miss M. BROCKINGTON.

CLASS 12.—SUSSEX (LIGHT), COCK. [5 entries.]

- I. (£1 10s.)—J. A. DEWAR.
- II. (£1.)—Sir GOMER BERRY, Bart.
- R.—D. A. CHAYTOR.
- V.H.C.—W. HODGES.
- H.C.—Sir GOMER BERRY, Bart.

CLASS 13.—SUSSEX (LIGHT), HEN. [7 entries.]

- I. (£1 10s.)—Sir GOMER BERRY, Bart.
- II. (£1.)—Sir GOMER BERRY, Bart.
- III. (10s.)—J. H. BAKER & SON.
- R.—J. A. DEWAR.
- V.H.C.—H. UNDERWOOD.
- H.C.—D. A. CHAYTOR.
- C.—A. JOHNS.

CLASS 14.—SUSSEX (SPECKLED), COCK. [3 entries.]

- I. (£1 10s.)—Sir GOMER BERRY, Bart.
- II. (£1.)—Sir GOMER BERRY, Bart.
- R.—Miss T. A. HILL.

CLASS 15.—SUSSEX (SPECKLED), HEN. [3 entries.]

- I. (£1 10s.)—Sir GOMER BERRY, Bart.
- II. (£1.)—Sir GOMER BERRY, Bart.
- R.—Mrs. A. JOHNS.

CLASS 16.—SUSSEX (ANY OTHER VARIETY), COCK. [3 entries.]

- I. (£1 10s.)—J. DUMBLETON.
- II. (£1.)—Sir GOMER BERRY, Bart.
- R.—Sir GOMER BERRY, Bart.

CLASS 17.—SUSSEX (ANY OTHER VARIETY), HEN. [4 entries.]

- I. (£1 10s.)—J. A. DEWAR.
- II. (£1.)—Sir GOMER BERRY, Bart.
- R.—Sir GOMER BERRY, Bart.
- V.H.C.—J. DUMBLETON.

CLASS 18.—DORKING (ANY VARIETY), COCK. [3 entries.]

- I. (£1 10s.)—A. J. MAJOR.
- II. (£1.)—J. A. DEWAR.
- R.—A. J. MAJOR.

CLASS 19.—DORKING (ANY VARIETY), HEN. [4 entries.]**I. (£1 10s.)—J. A. DEWAR.****II. (£1.)—MRS. E. MILLS.****R.—A. J. MAJOR.****V.H.C.—A. J. MAJOR.****CLASS 20.—LANGSHAN, COCK OR HEN. [4 entries.]****I. (£1 10s.)—LESLIE H. BACCHUS.****II. (£1.)—MRS. E. MILLS.****R.—WESTMOOR POULTRY FARM.****V.H.C.—MRS. E. MILLS.****CLASS 21.—WYANDOTTE (WHITE), COCK. [4 entries.]****I. (£1 10s.)—J. A. DEWAR.****II. (£1.)—J. A. DEWAR.****R.—H. GUNN.****V.H.C.—E. G. RICKETTS.****CLASS 22.—WYANDOTTE (WHITE), HEN. [4 entries.]****I. (£1 10s.)—H. GUNN.****II. (£1.)—J. A. DEWAR.****R.—J. A. DEWAR.****V.H.C.—W. E. PAGE.****CLASS 23.—WYANDOTTE (COLUMBIAN), COCK. [6 entries.]****I. (£1 10s.)—R. MATTERFACE.****II. (£1.)—F. BROWN.****III. (10s.)—F. BROWN.****R.—W. HARRIS.****V.H.C.—B. C. LEATHER.****H.C.—W. HARRIS.****CLASS 24.—WYANDOTTE (COLUMBIAN), HEN. [7 entries.]****I. (£1 10s.)—F. BROWN.****II. (£1.)—W. HARRIS.****III. (10s.)—F. BROWN.****R.—R. MATTERFACE.****V.H.C.—K. CLEMENTS.****H.C.—W. HARRIS.****C.—K. CLEMENTS.****CLASS 25.—WYANDOTTE (ANY OTHER VARIETY) COCK OR HEN. [3 entries.]****I. (£1 10s.)—W. H. BREWER.****II. (£1.)—J. H. BAKER & SON.****R.—H. SPENCELEY.**

CLASS 26.—WELSUMMER, COCK. [6 entries.]

- I. (£1 10s.)—N. M. GRANT.
- II. (£1.)—G. A. COLE.
- III. (10s.)—J. U. CHARLTON.
- R. Misses ACKERS & PEACOCK.
- V.H.C.—Miss A. C. H. CREWE.
- H.C.—J. H. MINETT SMITH.

CLASS 27.—WELSUMMER, HEN. [11 entries.]

- I. (£1 10s.)—J. MOSS.
- II. (£1.)—G. A. COLE.
- III. (10s.)—Miss D. EARLE.
- R.—Capt. Hon. C. K. GREENWAY.
- V.H.C.—Misses ACKERS & PEACOCK.
- H.C.—Miss D. EARLE.
- C.—N. M. GRANT.

CLASS 28.—INDIAN GAME, COCK. [7 entries.]

- I. (£1 10s.)—C. BRENT.
- II. (£1.)—H. WHITLEY.
- III. (10s.)—J. H. BAKER & SON.
- R.—K. J. G. HAWKEY.
- V.H.C.—E. C. TUCKER.
- H.C.—E. PURCELL.

CLASS 29.—INDIAN GAME, HEN. [11 entries.]

- I. (£1 10s.)—J. H. BAKER & SON.
- II. (£1.)—E. PURCELL.
- III. (10s.)—L. BEVAN.
- R.—H. WHITLEY.
- V.H.C.—C. BRENT.—E. C. TUCKER.
- H.C.—G. SPEAR.
- C.—G. SPEAR.

CLASS 30.—FRENCH (INCLUDING FAVEROLLES), COCK. [6 entries.]

- I. (£1 10s.)—Mrs. W. W. W. BUTT.
- II. (£1.)—G. HENWOOD.
- III. (10s.)—G. HENWOOD.
- R.—G. HENWOOD.
- V.H.C.—Mrs. W. A. REEVES.
- H.C.—F. W. GOODWIN.

CLASS 31.—FRENCH (INCLUDING FAVEROLLES), HEN. [6 entries.]

- I. (£1 10s.)—Mrs. W. W. W. BUTT.
- II. (£1.)—G. HENWOOD.
- III. (10s.)—Mrs. W. A. REEVES.
- R.—G. HENWOOD.
- V.H.C.—F. W. GOODWIN.
- H.C.—F. W. GOODWIN.

CLASS 32.—MINORCA, COCK. [4 entries.]

I. (£1 10s.)—S. H. GRIFFIN.**II. (£1.)**—J. A. DEWAR.**R.**—H. C. BALE.**V.H.C.**—W. S. DANDO.

CLASS 33.—MINORCA, HEN. [12 entries.]

I. (£1 10s.)—J. A. DEWAR.**II. (£1.)**—GOODMAN BROS.**III. (10s.)**—W. S. DANDO.**R.**—W. S. DANDO.**V.H.C.**—FURSLAND BROS.**H.C.**—S. H. GRIFFIN.**C.**—FURSLAND BROS.

CLASS 34.—LEGHORN (ANY COLOUR), COCK. [5 entries.]

I. (£1 10s.)—J. A. DEWAR.**II. (£1.)**—E. L. SIMON.**R.**—E. L. SIMON.**V.H.C.**—W. E. GILLING.**H.C.**—G. ROGERS.

CLASS 35.—LEGHORN (ANY COLOUR), HEN. [5 entries.]

I. (£1 10s.)—J. A. DEWAR.**II. (£1.)**—JENKINS & SON.**R.**—J. H. NORMAN.**V.H.C.**—W. E. GILLING.**H.C.**—G. ROGERS.

CLASS 36.—HAMBURG (ANY VARIETY), COCK OR HEN. [4 entries.]

I. (£1 10s.)—J. A. DEWAR.**II. (£1.)**—W. SNELL.**R.**—W. SNELL.**V.H.C.**—W. SNELL.

CLASS 37.—CAMPINE, COCK OR HEN. [7 entries.]

I. (£1 10s.)—D. J. JONES.**II. (£1.)**—J. S. APPLETON.**III. (10s.)**—D. J. JONES.**R.**—Miss M. E. RAGG.**V.H.C.**—Dr. T. ST. CLAIR SMITH.**H.C.**—W. A. SLOCOCK.**C.**—W. A. SLOCOCK.

CLASS 38.—OLD ENGLISH GAME (BLACK RED), COCK. [3 entries.]

I. (£1 10s.)—J. A. DEWAR.**II. (£1.)**—J. JONES.

CLASS 39.—OLD ENGLISH GAME (WHEATON OR PARTRIDGE),
HEN. [4 entries.]

I. (£1 10s.)—J. H. BAKER & SON.

II. (£1.)—J. JONES.

R.—J. W. KINSEY.

CLASS 40.—OLD ENGLISH GAME (ANY OTHER COLOUR), COCK.
[8 entries.]

I. (£1 10s.)—S. V. GILBERT.

II. (£1.)—F. G. BIGG & SON.

III. (10s.)—H. WHITLEY.

R.—J. JONES.

V.H.C.—E. BROWN.

H.C.—A. J. MAJOR.

C.—J. JONES.

CLASS 41.—OLD ENGLISH GAME (ANY OTHER COLOUR), HEN.
[6 entries.]

I. (£1 10s.)—H. WHITLEY.

II. (£1.)—E. BROWN.

III. (10s.)—J. HARRINGTON.

R.—J. HARRINGTON.

V.H.C.—J. HARRINGTON.

CLASS 42.—ANCONA, COCK. [5 entries.]

I. (£1 10s.)—T. HEAD.

II. (£1.)—J. H. BAKER & SON.

R.—G. J. DAVIES.

CLASS 43.—ANCONA, HEN. [6 entries.]

I. (£1 10s.)—T. DAVIES.

II. (£1.)—T. DAVIES.

III. (10s.)—T. HEAD.

R.—J. H. BAKER & SON.

V.H.C.—Lt.-Col. Sir C. W. MILES, Bart.

H.C.—Lt.-Col. Sir C. W. MILES, Bart.

CLASS 44.—ANY OTHER DISTINCT BREED NOT PREVIOUSLY
MENTIONED (EXCLUDING BANTAMS), COCK. [8 entries.]

I. (£1 10s.)—J. A. DEWAR, *Buff Cochins*.

II. (£1.)—W. H. BREWER.

III. (10s.)—J. H. BAKER & SON, *Malay*.

R.—N. M. GRANT.

V.H.C.—H. KEY, *Gold Poland*.

H.C.—W. J. PRITCHARD, *Jersey Black Giant*.

C.—J. W. SPENCER, *Andalusian*.

CLASS 45.—ANY OTHER DISTINCT BREED NOT PREVIOUSLY MENTIONED (EXCLUDING BANTAMS), HEN. [9 entries.]

I. (£1 10s.)—W. H. BREWER.

II. (£1.)—J. H. BAKER & SON, *Jubilee Game*.

III. (10s.)—J. JONES, *Modern Game*.

R.—H. KEY, *Gold Poland*.

V.H.C.—N. M. GRANT.

H.C.—A. E. COLLETT, *Old English Pheasant*.

C.—H. WHITLEY, *Andalusian*.

SELLING CLASSES.

CLASS 46.—ANY DISTINCT BREED, COCK OR COCKEREL (PRICE NOT TO EXCEED £1 ls.) [13 entries.]

I. (£1 10s.)—J. A. DEWAR.

II. (£1.)—W. H. BREWER.

III. (10s.)—J. H. BAKER & SON, *Indian Game*.

R.—LESLIE H. BACCHUS.

V.H.C.—W. HARRIS, *R. I. R.*

H.C.—H. WHITLEY.

C.—T. H. SHELDON, *Wyandotte*.

CLASS 47.—ANY DISTINCT BREED, HEN OR PULLET (PRICE NOT TO EXCEED £1 ls.) [9 entries.]

I. £1 10s.)—J. H. BAKER & SON, *Light Sussex*.

II. (£1.)—W. H. BREWER.

III. (10s.)—J. A. DEWAR.

R.—J. H. NORMAN, *Sussex*.

V.H.C.—K. J. G. HAWKEY, *Indian Game*.

H.C.—W. SNEEL, *Wyandotte*.

C.—F. W. ROGERS.

CHICKENS OF 1931.

CLASS 48.—SUSSEX (ANY VARIETY), COCKEREL. [7 entries.]

I. (£1 10s.)—J. A. DEWAR, hatched January 3rd.

II. (£1.)—SIR GOMER BERRY, Bart., hatched January 2nd.

III. (10s.)—H. UNDERWOOD, hatched January 2nd.

R.—SIR GOMER BERRY, Bart., hatched January 2nd.

V.H.C.—W. HODGES, *Light*, hatched January 2nd.

H.C.—D. A. CHAYTOR, hatched January 2nd-4th.

CLASS 49.—SUSSEX (ANY VARIETY), PULLET. [9 entries.]

I. (£1 10s.)—SIR GOMER BERRY, Bart., hatched January 2nd.

II. (£1.)—J. A. DEWAR, hatched January 3rd.

III. (10s.)—W. HODGES, *Light*, hatched January 2nd.

R.—J. E. ATHERTON, hatched January 2nd.

V.H.C.—H. UNDERWOOD, hatched January 2nd.

H.C.—J. H. BAKER & SON, *Light*.

C.—SIR GOMER BERRY, Bart., hatched January 2nd.

CLASS 50.—WYANDOTTE (ANY VARIETY), COCKEREL. [7 entries.]

- I. (£1 10s.)—W. H. COOK, hatched January 7th.
- II. (£1.)—W. H. BREWER, hatched January 2nd.
- III. (10s.)—Sir GOMER BERRY, Bart., hatched January 2nd.
- R.—J. A. DEWAR, hatched January 3rd.
- V.H.C.—H. GUNN, hatched January 1st.
- H.C.—E. G. RICKETTS, hatched January 2nd.
- C.—Mrs. T. HENDY.

CLASS 51.—WYANDOTTE (ANY VARIETY), PULLET. [5 entries.]

- I (£1 10s.)—Sir GOMER BERRY, Bart., hatched January 2nd.
- II. (£1.)—J. A. DEWAR, hatched January 3rd.
- R.—H. GUNN, hatched January 1st.
- V.H.C.—Mrs. W. A. REEVES, hatched January 8th.

CLASS 52.—ANY OTHER VARIETY, SOFT FEATHER, COCKEREL.
[8 entries.]

- I. (£1 10s.)—Mrs. W. W. BUTT, *Plymouth Rock*.
- II. (£1.)—A. J. MAJOR, *Dorking*.
- III. (10s.)—Capt. Hon. C. K. GREENWAY, *R. I. R.*, hatched January 3rd.
- R.—PENPRASE BROS., *Plymouth Rock*, hatched January 3rd.
- V.H.C.—J. H. BAKER & SON, *R. I. R.*
- H.C.—N. M. GRANT, hatched January 1st.
- C.—W. H. COOK, *Orpington*, hatched January 7th.

CLASS 53.—ANY OTHER VARIETY, SOFT FEATHER, PULLET.
[10 entries.]

- I. (£1 10s.)—A. J. MAJOR, *Dorking*.
- II. (£1.)—Mrs. W. A. REEVES, *White Bresse*, hatched January 8th.
- III. (10s.)—J. H. BAKER & SON, *R. I. R.*
- R.—N. M. GRANT, hatched January 1st.
- V.H.C.—PENPRASE BROS., *Plymouth Rock*, hatched January 3rd.
- H.C.—Capt. Hon. C. K. GREENWAY, *R. I. R.*, hatched January 3rd.

CLASS 54.—ANY OTHER VARIETY, HARD FEATHER, COCKEREL.
[6 entries.]

- I. (£1 10s.)—N. RYALL, hatched January 1st.
- II. (£1.)—C. BRENT, *Indian Game*, hatched January 28th.
- II. (10s.)—K. J. G. HAWKEY, *Indian Game*, hatched January 2nd.

CLASS 55.—ANY OTHER VARIETY, HARD FEATHER, PULLET.
[5 entries.]

- I. (1 10s.)—C. BRENT, *Indian Game*, hatched January 28th.
- II. (£1.)—H. WHITLEY, *O. E. Game*, 4 m.
- R.—K. J. G. HAWKEY, *Indian Game*, hatched January 2nd.
- V.H.C.—N. RYALL, hatched January 1st.
- H.C.—J. H. BAKER & SON, *Indian Game*.

UTILITY POULTRY.**CLASS 56.—WYANDOTTE, COCK. [10 entries.]**

- I. (£1 10s.)—H. GUNN.**
- II. (£1.)—J. A. DEWAR.**
- III. (10s.)—J. D. BEAK.**
- R.—TREBILCOCK BROS.**
- V.H.C.—Mrs. W. WHITTLE.**
- H.C.—E. G. RICKETTS.**
- C.—MAUNDER & SONS.**

CLASS 57.—WYANDOTTE, HEN. [12 entries.]

- I. (£1 10s.)—J. A. DEWAR.**
- II. (£1.)—H. GUNN.**
- III. (10s.)—Mrs. W. WHITTLE.**
- R.—TREBILCOCK BROS.**
- V.H.C.—W. G. WAKELEY.**
- H.C.—W. G. WAKELEY.**
- C.—J. D. BEAK.**

CLASS 58.—SUSSEX, COCK. [9 entries.]

- I. (£1 10s.)—H. GUNN.**
- II. (£1.)—Sir GOMER BERRY, Bart.**
- III. (10s.)—J. A. DEWAR.**
- R.—J. H. BAKER & SON.**
- V.H.C.—Capt. L. G. M. WHITLEY.**
- H.C.—J. E. ATHERTON.**
- C.—Sir GOMER BERRY, Bart.**

CLASS 59.—SUSSEX, HEN. [12 entries.]

- I. (£1 10s.)—J. E. ATHERTON.**
- II. (£1.)—J. E. ATHERTON.**
- III. (10s.)—Sir GOMER BERRY, Bart.**
- R.—J. A. DEWAR.**
- V.H.C.—J. E. ATHERTON.**
- H.C.—E. L. SIMON.**
- C.—J. E. ATHERTON.**

CLASS 60.—RHODE ISLAND RED, COCK. [10 entries.]

- I. (£1 10s.)—M. P. NOTLEY.**
- II. (£1.)—M. P. NOTLEY.**

III. (10s.)—Capt. Hon. C. K. GREENWAY.

R.—J. H. BAKER & SON.

V.H.C.—MAUNDER & SONS.

H.C.—W. BENN.

C.—G. RICE.

CLASS 61.—RHODE ISLAND RED, HEN. [8 entries.]

I. (£1 10s.)—Capt. Hon. C. K. GREENWAY.

II. (£1.)—J. H. BAKER & SON.

III. (10s.)—K. CLEMENTS.

R.—K. CLEMENTS.

V.H.C.—J. H. NORMAN.

H.C.—K. CLEMENTS.

C.—H. T. HILLS.

CLASS 62.—LEGHORN, COCK. [7 entries.]

I. (£1 10s.)—J. A. DEWAR.

II. (£1.)—T. HUGHES.

III. (10s.)—T. HUGHES.

R.—R. & E. CHARTERIS (LD.).

V.H.C.—Miss T. A. HILL.

C.—J. H. NORMAN.

CLASS 63.—LEGHORN, HEN. [7 entries.]

I. (£1 10s.)—J. A. DEWAR.

II. (£1.)—J. H. NORMAN.

III. (10s.)—J. H. BAKER & SON.

R.—J. H. NORMAN.

V.H.C.—R. & E. CHARTERIS (LD.).

H.C.—F. G. BIGG & SON.

CLASS 64.—ANY OTHER VARIETY, LIGHT BREED, COCK. [4 entries.]

I. (£1 10s.)—J. H. BAKER & SON, *Ancona*.

II. (£1.)—ABBOT BROS.

R.—A. E. COLLETT, *Old English Pheasant*.

CLASS 65.—ANY OTHER VARIETY, LIGHT BREED, HEN. [9 entries.]

I. (£1 10s.)—J. H. BAKER & SON, *Ancona*.

II. (£1.)—F. NORMAN.

III. (10s.)—Mrs. W. A. REEVES, *White Bresse*.

R.—A. E. COLLETT, *Old English Pheasant*.

V.H.C.—Lt.-Col. Sir C. W. MILES, Bart.

H.C.—Lt.-Col. Sir C. W. MILES, Bart.

C.—ABBOT BROS.

CLASS 66.—ANY OTHER VARIETY, HEAVY BREED, COCK. [11 entries.]

- I. (£1 10s.)—W. H. COOK.
- II. (£1.)—Mrs. W. W. W. BUTT.
- III. (10s.)—J. H. BAKER & SON, *Indian Game*.
- R.—F. W. GOODWIN, *Australorp*.
- V.H.C.—A. J. MAJOR, *Dorking*.
- H.C.—N. M. GRANT.
- C.—W. E. PAGE, *Buff Orpington*.

CLASS 67.—ANY OTHER VARIETY, HEAVY BREED, HEN. [9 entries.]

- I. (£1 10s.)—N. M. GRANT.
- II. (£1.)—J. H. BAKER & SON, *Indian Game*.
- III. 10s.)—A. J. MAJOR, *Dorking*.
- R.—Mrs. E. MILLS, *Langshan*.
- V.H.C.—J. H. NORMAN, *Rock*.
- H.C.—B. C. LEATHER, *Barnvelder*.
- C.—F. W. GOODWIN, *Australorp*.

The Columbian Wyandotte Club (Hon. Sec., J. Dickinson, Brissenden, Staplehurst, Kent), gave the following Special Prizes:—

“*The Goddard Visiting Cup*” for best Columbian Wyandotte exhibited.
I.—R. MATTERFACE.

“*The Twist Novice Points Cup*” and the “*West Hill Novice Points Cup*.”
(Points credited by Club Secretary).

The Welsummer Club (Hon. Sec., Mrs. A. M. Pape, Shrewton House, Shrewton, Wilts) gave a Special Prize for the best Welsummer exhibited:—

- I.—N. M. GRANT.

CHAMPION PRIZES.

Best Cock or Cockerel exhibited in any of the Classes.

- I. (£3.)—Sir GOMER BERRY, Bart.

Best Hen or Pullet exhibited in any of the Classes.

- I. (£3.)—J. A. DEWAR.

DUCKS, GEESE AND TURKEYS.

CLASS 68.—DRAKE OR DUCK (AYLESBURY). [7 entries.]

I. (£1 10s.)—H. G. WESTON.

II. (£1.)—A. LEWINGTON.

III. (10s.)—W. E. PAGE.

V.H.C.—W. TALL.

H.C.—W. TALL.

C.—H. G. WESTON.

CLASS 69.—DRAKE OR DUCK (ROUEN). [4 entries.]

I. (£1 10s.)—S. SPINKE.

II. (£1.)—ABBOT BROS.

R.—S. SPINKE.

V.H.C.—C. BRENT.

CLASS 70.—DRAKE OR DUCK (INDIAN RUNNER). [13 entries.]

I. (£1 10s.)—H. WHITLEY.

II. (£1.)—Rev. J. HEWETSON.

III. (10s.)—M. P. NOTLEY.

R.—W. J. HEWITT.

V.H.C.—W. J. HEWITT.—H. WHITLEY.

H.C.—Rev. J. HEWETSON.

C.—ABBOT BROS.

CLASS 71.—DRAKE OR DUCK (ANY OTHER VARIETY). [6 entries.]

I. (£1 10s.)—ABBOT BROS.

II. (£1.)—Capt. Hon. C. K. GREENWAY.

III. (10s.)—J. H. BUTLER, *Khaki Campbell*.

R.—Mrs. G. E. SMITH, *Muscovy*.

V.H.C.—J. H. BUTLER, *Khaki Campbell*.

CLASS 72.—GANDER OR GOOSE. [5 entries.]

I. (£1 10s.)—ABBOT BROS.

II. (£1.)—Capt. N. MILNE HARROP.

R.—H. WHITLEY.

V.H.C.—J. L. PADFIELD.

CLASS 73.—TURKEY, COCK OR HEN. [7 entries.]

I. (£1 10s.)—H. WHITLEY.

II. (£1.)—ABBOT BROS.

III. (10s.)—Mrs. G. B. MATTHEWS.

R.—Mrs. G. E. SMITH.

V.H.C.—ABBOT BROS.

H.C.—F. E. HUGHES.

PIGEONS.

(Under N.P.A. Show Rules).

CLASS 74.—POUTER, PIGMY OR CROPPER, COCK OR HEN.

[10 entries.]

I. (£1.)—A. BLACKMAN.**II. (10s.)**—A. BLACKMAN.**III. (5s.)**—BROOKES & POPE.**R.**—W. J. POOLE.**V.H.C.**—J. VOISEY.**H.C.**—BROOKES & POPE.**C.**—C. PERRY.**CLASS 75.—DRAGOON, COCK OR HEN. [2 entries.]****I. (£1.)**—J. SPAVEN.**R.**—J. SPAVEN.**CLASS 76.—MAGPIE (BLACK), COCK OR HEN. [3 entries.]****I. (£1.)**—F. G. JAMES.**III. (5s.)**—C. H. CLOAD.**R.**—C. H. CLOAD.**CLASS 77.—MAGPIE (ANY OTHER COLOUR), COCK OR HEN.**

[3 entries.]

I. (£1.)—C. H. CLOAD.**II. (10s.)**—C. H. CLOAD.**R.**—F. C. JAMES.**CLASS 78.—TUMBLER (LONG-FACED), COCK OR HEN. [2 entries.]****I. (£1.)**—M. HADDRELL.**R.**—W. L. LANGLEY.**CLASS 79.—JACOBIN (ANY COLOUR), COCK OR HEN. [1 entry].****II. (10s.)**—M. HADDRELL.**CLASS 80.—MODENA, COCK OR HEN. [7 entries.]****I. (£1.)**—S. YEO.**II. (10s.)**—H. J. BEER.**III. (5s.)**—S. YEO.**R.**—H. J. BEER.**V.H.C.**—E. H. LEE.**H.C.**—H. W. WEBB.**C.**—W. L. LANGLEY.

CLASS 81.—FANTAIL (ANY COLOUR), COCK OR HEN. [4 entries.]

I. (£1.)—E. H. LEE.

III. (5s.)—W. A. WILLIAMS.

R.—E. H. LEE.

V.H.C.—E. H. LEE.

CLASS 82.—EXHIBITION HOMER, COCK OR HEN. [6 entries.]

I. (£1.)—MATTHEWS & LEWIS.

II. (10s.)—MATTHEWS & LEWIS.

III. (5s.)—T. & J. MARTIN.

R.—E. TANNER.

V.H.C.—W. BURCHELL.

H.C.—T. & J. MARTIN.

CLASS 83.—WORKING HOMER (ADULT), COCK. [8 entries.]

I. (£1.)—L. E. RIDGE.

II. (10s.)—E. H. LEE.

III. (5s.)—L. E. RIDGE.

R.—H. MARSH.

V.H.C.—G. ROWLAND.

H.C.—H. MARSH.

C.—T. LUCAS.

CLASS 84.—WORKING HOMER (ADULT), HEN. [5 entries.]

I. (£1.)—L. E. RIDGE.

II. (10s.)—W. WHITE.

R.—L. E. RIDGE.

V.H.C.—G. ROWLAND.

H.C.—T. LUCAS.

CLASS 85.—WORKING HOMER (1931), COCK. [3 entries.]

I. (£1.)—L. E. RIDGE.

II. (10s.)—E. H. LEE.

R.—H. MARSH.

CLASS 86.—WORKING HOMER (1931), HEN. [4 entries.]

I. (£1.)—L. E. RIDGE.

II. (10s.)—E. H. LEE.

R.—H. MARSH.

V.H.C.—G. ROWLAND.

CLASS 87.—ANY OTHER VARIETY, COCK. [7 entries.]

I. (£1.)—W. SMITH, *Trumpeter*.

II. (10s.)—H. W. WEBB, *Tumbler*.

III. (5s.)—A. BLACKMAN, *Scanderoon*.

R.—F. G. BARNARD, *Show Homer*.

V.H.C.—S. YEO.

H.C.—C. PERRY, *Show Homer*.

C.—M. HADRELL, *Nun*.

CLASS 88.—ANY OTHER VARIETY, HEN. [5 entries.]

I. (£1.)—M. HADDRELL.

Equal II. (7s. 6d.)—F. G. BARNARD, *Show Homer*, and W. SMITH, *Trumpeter*.V.H.C.—A. BLACKMAN, *Scandaroon*.H.C.—H. W. WEBB, *Tumbler*.

CLASS 89.—SELLING CLASS (ANY VARIETY), PRICE NOT TO EXCEED £2, COCK OR HEN. [4 entries.]

I. (£1.)—A. BLACKMAN, *Pouter*.II. (10s.)—H. W. WEBB, *Tumbler*.R.—C. PERRY, *Pigmy Pouter*.

V.H.C.—M. HADDRELL.

CLASS 90.—SELLING CLASS (ANY VARIETY), PRICE NOT TO EXCEED £1, COCK OR HEN. [4 entries.]

I. (£1.)—H. W. WEBB, *Tumbler*.

II. (10s.)—M. HADDRELL.

R.—A. BLACKMAN, *Pigmy*.

V.H.C.—W. L. LANGLEY.

CHAMPION PRIZE.

Best Pigeon exhibited in any of the Classes.

I. (£2.)—J. SPAVEN.

R.—A. BLACKMAN.

RABBITS.

CLASS 1.—ENGLISH (ANY COLOUR), 5 MONTHS OLD AND OVER. [11 entries.]

I. (£1.)—F. WEBLEY.

II. (10s.)—J. SHERBORNE.

III. (5s.)—C. EMMET.

R.—L. D. ANDREWS, *Black*.V.H.C.—L. D. ANDREWS, *Blue*.H.C.—A. RALPH, *Black*.

C.—J. JAMES.

CLASS 2.—ENGLISH (ANY COLOUR), UNDER 5 MONTHS OLD [7 entries.]

I. (£1.)—C. EMMETT.

II. (10s.)—J. JAMES.

III. (5s.)—F. WEBLEY.

R.—J. CAISE, *Black*.

V.H.C.—E. C. BASSETT, *Black*.

H.C.—J. SHERBORNE.

C.—F. WEBLEY.

CLASS 3.—SILVER, ANY AGE. [3 entries.]

I. (£1.)—R. LAWRENCE.

II. (10s.)—J. N. READ.

R.—R. LAWRENCE.

**CLASS 4.—DUTCH (ANY COLOUR), 5 MONTHS OLD AND OVER.
[8 entries.]**

I. (£1.)—E. F. TILLING.

II. (10s.)—C. R. NICHOLLS.

III. (5s.)—H. V. GURNSEY, *Black*.

R.—J. JAMES.

V.H.C.—E. C. BASSETT, *Steel*.

H.C.—J. A. BATTEN.

C.—W. C. HADDON, *Tortoiseshell*.

CLASS 5.—DUTCH (ANY COLOUR), UNDER 5 MONTHS. [14 entries.]

I (£1.)—W. C. HADDON, *Tortoiseshell*.

II (10s.)—P. ILES.

III. (5s.)—E. F. TILLING.

R.—V. M. FIELDING.

V.H.C.—COX & SCRASE.

H.C.—V. M. FIELDING.

C.—A. HEATH.

CLASS 6.—CHINCHILLA, BUCK, ANY AGE. [7 entries.]

I. (£1.)—A. H. COUZENS.

II. (10s.)—Mrs. R. CROSBY.

III. (5s.)—H. YOUNG.

R.—G. W. BENNETT.

CLASS 7.—CHINCHILLA, DOE, ANY AGE. [6 entries.]

I. (£1.)—Miss M. THOMPSON.

II. (10s.)—Mrs. R. CROSBY.

III. (5s.)—G. W. BENNETT.

R.—Miss M. THOMPSON.

V.H.C.—Miss M. THOMPSON.

CLASS 8.—ARGENTE (ANY COLOUR), ANY AGE. [3 entries.]

I. (£1.)—Mrs. E. GEORGE, *Champayne*.

II. (10s.)—Mrs. E. GEORGE, *Creme*.

R.—H. GANE.

CLASS 9.—BEVERAN (ANY COLOUR), ANY AGE. [12 entries]

I. (£1.)—Rev. F. J. PRIDEAUX.

II. (10s.)—J. W. MEDWAY, *Blue*.

III. (5s.)—J. W. MEDWAY, *Blue*.

R.—W. H. CROUCH.

V.H.C.—G. MARTIN.

H.C.—MAC SATHERLEY.

C.—A. J. WILLIAMS, *Blue*.

CLASS 10.—FLEMISH GIANT, ANY AGE. [1 entry.]

I. (£1.)—Mrs. E. M. DUNN.

CLASS 11.—SABLE, ANY AGE. [6 entries.]

I. (£1.)—W. HARBACH.

II. (10s.)—Miss M. THOMPSON.

III. (5s.)—Miss M. THOMPSON.

R.—Miss M. THOMPSON.

V.H.C.—Miss M. THOMPSON.

H.C.—Capt. H. G. ALSTON.

CLASS 12.—HAVANA, ANY AGE. [6 entries.]

I. (£1.)—P. H. HOUGHTON.

II. (10s.)—Mrs. E. M. DUNN.

III. (5s.)—Mrs. G. BELL.

R.—Rev. F. J. PRIDEAUX.

V.H.C.—Mrs. A. J. WILLIAMS.

CLASS 13.—TAN, ANY AGE. [6 entries.]

I. (£1.)—H. E. CATFORD.

II. (10s.)—W. H. WALTER.

III. (5s.)—H. E. CATFORD.

R.—H. W. CAMMELL.

V.H.C.—C. A. M. WOOD.

H.C.—C. A. M. WOOD.

CLASS 14.—LILAC, ANY AGE. [2 entries.]

I. (£1.)—Mrs. E. M. COLEY.

R.—W. THORNTON.

CLASS 15.—ANGORA, 5 MONTHS OLD AND OVER. [7 entries.]

- I. (£1.)—Miss M. B. WILBRAHAM.
- II. (10s.)—Miss M. B. WILBRAHAM.
- III. (5s.)—Mrs. T. FAWKES.
- R.—C. V. LEWIS.
- V.H.C.—Mrs. M. UNWIN.
- H.C.—Mrs. M. UNWIN.

CLASS 16.—ANGORA, UNDER 5 MONTHS. [1 entry.]

- II. (10s.)—C. V. LEWIS.

CLASS 17.—ANY OTHER VARIETY, 5 MONTHS OLD AND OVER.
[11 entries.]

- I. (£1.)—T. E. DINGLE, *Silver Fox*.
- II. (10s.)—E. WALLINGTON, *Belgian Hare*.
- III. (5s.)—Mrs. T. FAWKES, *Rex*.
- R.—G. HARRISON, *Lop*.
- V.H.C.—Mrs. J. ARNEY, *Rex*.
- H.C.—Mrs. M. B. ARSCOTT, *Silver Fox*.
- C.—E. WALLINGTON, *Belgian Hare*.

CLASS 18.—ANY OTHER VARIETY, UNDER 5 MONTHS. [4 entries.]

- I. (£1.)—G. HARRISON, *Lop*.
- II. (10s.)—Mrs. J. ARNEY, *Rex*.

CLASS 19.—SELLING CLASS (ANY VARIETY), PRICE NOT TO
EXCEED £1. [13 entries.]

- I. (£1.)—G. BROWN, *Sooty Fawn Lop*.
- II. (10s.)—H. GANE, *Argente*.
- III. (5s.)—M. P. NOTLEY, *Black Dutch*.
- R.—H. YOUNG, *Chinchilla*.
- H.C.—E. F. TILLING, *Dutch*.
- V.H.C.—R. LAURENCE.
- C.—E. WALLINGTON.

CHAMPION PRIZE.

Best Rabbit exhibited in any of the Classes.

- I. (£2.)—F. WEBLEY.
- R.—Miss M. B. WILBRAHAM.

MILK RECORDED AND DAIRY HERDS.

MILK RECORDED HERDS.

CLASS 1.—MILK RECORDED HERD CONTAINING 15 OR OVER
FULL TIME RECORDED COWS. [8 entries.]

- I. (£30.)—A. H. TARR, Westfield, Chedzoy, Bridgwater.
- II. (£20.)—TROUGHTON BROS., Leigh Court, near Cheltenham.
- III. (£10.)—J. CRUMPLER & SONS, Longlands, North Coker, Yeovil.
- R.—WM. BUTLER, Gatcombe Farm, Flax Bourton, Bristol.
- H.C.—LORD DULVERTON, Batsford Park, Moreton-in-Marsh, Glos.
- C.—F. SWANTON, Overton, Marlborough.

CLASS 2.—MILK RECORDED HERD CONTAINING UNDER 15 FULL
TIME RECORDED COWS. [12 entries.]

- I. (£20.)—MRS. M. M. FITZGERALD, Marsden Manor, Cirencester.
- II. (£15.)—LADY EYES MONSELL, C.B.E., Dumbleton Hall, near Evesham.
- III. (£5.)—Capt. P. D. A. COURTENAY, Greenlawn, Burnham-on-Sea.
- R.—WM. BRYANT, Elmsleigh, Cribbs Causeway, Glos.
- H.C.—JAS. GRIFFIN, Moor Side Farm, Backwell, West Town, Somerset.
- C.—J. W. TAUNTON, Paccombe, Downton, Salisbury.

DAIRY HERDS.

CLASS 3.—HERD OF NOT LESS THAN 30 DAIRY COWS, THE
PROPERTY OF A BONA-FIDE FARMER. [4 entries.]

- I. (£30.)—W. R. WITHERS, Lower Court, Long Ashton, Bristol.
- II. (£20.)—S. T. PIKE, Roundway, Devizes.
- III. (£10.)—C. A. CHILLINGWORTH, Barton Farm, Siddington, Cirencester.
- R.—H. F. REAKES, Batch Farm, Kilmersdon, Radstock.

CLASS 4.—HERD OF NOT LESS THAN 8 OR MORE THAN 30
DAIRY COWS, THE PROPERTY OF A BONA-FIDE FARMER.
[4 entries.]

- I. (£20.)—A. E. BALL, Coulston House, Westbury, Wilts.
- II. (£15.)—H. LEAR, Doynton, Bristol.
- III. (£5.)—G. H. BENNETT, Says Farm, Frampton Cotterell, Bristol.
- R.—H. MATTHEWS, Winterbourne, Bristol.

UTILITY PIG HERDS.

UTILITY HERD (NOT NECESSARILY PEDIGREE) OF 25 PIGS OR OVER, COMPRISING NOT LESS THAN 3 BREEDING SOWS AND NOT LESS THAN TWO-THIRDS OF THE HERD TO HAVE BEEN BRED BY THE EXHIBITOR. [7 entries.]

- I. (£15.)—W. WHITE & SON, Pool Farm, Taunton.
- II. (£10.)—J. CRUMPLER & SONS, Longlands, North Coker, Yeovil.
- III. (£5.)—Lt.-Col. Sir C. W. MILES, Bart., Church Farm, Walton-in-Gordano, Clevedon.
- R.—Capt. D. M. WILLS, Barley Wood, Wrington, Somerset.
- H.C.—Col. F. S. KENNEDY SHAW, C.B.E., Teffont Magna, Salisbury.
- C.—CROUCH & SONS, Manor Farm, Teffont Magna, Salisbury.—MATTHEWS, H., Winterbourne, Bristol.

SMALL HOLDINGS.

CLASS 1.—SMALL HOLDING, EXCEEDING 25 ACRES, OCCUPIED BY TENANTS OF THE SOMERSET COUNTY COUNCIL. [13 entries.]

- I. (£15.)—R. H. SHIRE, Downs, Donyatt, Ilminster.
- II. (£8.)—G. H. MITCHELL, Sea Farm Holding, Ilminster.
- III. (£5.)—W. J. PARSONS, Hutton, Weston-super-Mare.
- IV. (£2.)—H. PICKNEY ROSSITER, Kingston, Taunton.
- H.C.—C. J. BLACKMORE, Dollings Pool, Donyatt, Ilminster.
- C.—R. COLES, Waterdene, Crowcombe, Taunton.

CLASS 2.—SMALL HOLDING, OVER 3 AND NOT EXCEEDING 25 ACRES, OCCUPIED BY TENANTS OF THE SOMERSET COUNTY COUNCIL. [7 entries.]

- I. (£10.)—E. A. WILKINS, Fideoak Cottages, Bishops Hull, Taunton.
- II. (£5.)—T. GILLINGHAM, Court Farm, Seavington, Som.
- III. (£3.)—P. SUMMERS, Pound Holding, Donyatt.
- IV. (£2.)—A. J. HILL, The Firs, North Barrow, Sparkford, Yeovil.
- H.C.—E. RICHARDS, Shop Farm, Lamyatt, Evercreech, Bath.
- C.—W. G. ROBINSON, Fair View, Horton, near Ilminster.

FORESTRY SECTION.

CLASS 1.—FOR A GENERAL COLLECTION OF EXHIBITS ILLUSTRATIVE OF FORESTRY. [3 entries.]

I. (Gold Medal.)—GEORGE A. PEACOCK, Nantyrihw, Upper Canning Street, Ton Pentre, Glam.

II. (Silver Medal.)—THE ROYAL AGRICULTURAL COLLEGE, Cirencester.

III. (Bronze Medal.)—DARTINGTON HALL, LTD., Forestry Department, Dartington Hall, Totnes, S. Devon.

CLASS 2.—FOR A 3-FEET SECTION CUT LENGTHWAYS DOWN THE CENTRE OF A SPECIMEN OF CONIFEROUS TIMBER OF NOT MORE THAN 45 YEARS OF AGE. [3 entries.]

I. (Silver Medal.)—DARTINGTON HALL, LTD., Forestry Department, Dartington Hall, Totnes, S. Devon.

CLASS 3.—FOR RARE OR ORNAMENTAL TREES, EXHIBITED BY NURSERYMEN. [2 entries.]

I. (Silver Medal.)—PRIMLEY BOTANIC NURSERY, Paignton.

II. (Bronze Medal.)—FOREST PRODUCTS, LTD., Huntley, Glos.

CLASS 4.—FOR CONIFEROUS FOLIAGE. [1 entry.]

I. (Silver Medal.)—PRIMLEY BOTANIC NURSERY, Paignton.

CLASS 5.—FOR ESTATE FOREST WORKING PLANS, CONFINED TO ESTATES OF NOT LESS THAN 250 ACRES OF WOODLAND. [2 entries.]

I. (Silver Medal and Bronze Medal to Forester.)—VIVOD ESTATE, Llangollen.

CLASS 6.—FOR EXHIBITS CONTRIBUTED BY NURSERYMEN, INSTITUTIONS OR ESTATES NOT DESIROUS OF ENTERING IN COMPETITIVE CLASSES. (IN THIS CLASS THE JUDGE WAS EMPOWERED TO AWARD A CERTIFICATE TO ANY EXHIBIT OF SPECIAL MERIT). [4 entries.]

(Certificate.)—FORESTRY COMMISSION, 22, Grosvenor Gardens, London, S.W.1.

CLASS 7.—FOR EXAMPLES OF CREOSOTING BY PRESSURE OR ABSORPTION AND OF OTHER METHODS OF PRESERVATION. [5 entries.]

I. (Silver Medal.)—THE ASHTON COURT ESTATE, Long Ashton.

II. (Bronze Medal.)—Capt. W. BEST, Vivod, Llangollen.

C.—THE POWELL DUFFRYN STEAM COAL CO., LTD., 1, Great Tower Street, London, E.C.3.

CLASS 8.—FOR EXHIBITS OF ENGLISH TIMBER WORKED UP FOR ESTATE, RAILWAY OF COMMERCIAL PURPOSES. [4 entries.]

I. (Silver Medal).—THE GREAT WESTERN RAILWAY COMPANY, Swindon, Wilts.

II. (Bronze Medal) and (£3 to Workmen).—DARTINGTON HALL, LTD., Forestry Department, Dartington Hall, Totnes, S. Devon.

C.—FOREST PRODUCTS, LTD., Huntley, Glos.

(£2 to Workmen).—THE ASHTON COURT ESTATE, Long Ashton.

(The Judge was empowered to award money prizes to the value of £5 to the workmen showing initiative and responsible for the best practical workmanship among the exhibits in any of the above Classes).

CLASS 9.—FOR A 9-FEET FIELD GATE, MANUFACTURED FROM HOME-GROWN TIMBER, SHOWN IN WORKING ORDER. THE WOOD NOT TO HAVE BEEN DRESSED WITH A PRESERVATIVE, (CREOSOTED OR PAINTED). [8 entries.]

I. (Silver Medal).—Lieut.-Colonel Sir C. W. MILES, Bart., Walton-in-Gordano, Clevedon.

II. (Bronze Medal).—THE EARL OF RADNOR, Longford Estate Office, Alderbury, Salisbury.

C.—THE ASHTON COURT ESTATE, Long Ashton.

(The Prizes in this Class were offered through the local Hunt Committees.)

CLASS 10.—GATE SUITABLE FOR HUNTING PURPOSES. [6 entries.]

I. (£5).—THE ASHTON COURT ESTATE, Long Ashton.

II. (£3).—THE EARL OF RADNOR, Longford Estate Office, Alderbury, Salisbury.

III. (£2).—FORTESCUE ESTATES COMPANY, Castle Hill Estate Office, near Barnstaple.

CLASS 11.—WATTLE SHELTER (HURDLES). [3 entries.]

I. (£3).—D. DUNN, Kings Somborne, Hants.

II. (£2).—Sir F. HERVEY-BATHURST, Bart., D.S.O., Somborne Park, Kings Somborne, Hants.

SPECIAL PRIZE.

The Silver Medal of the Royal English Arboricultural Society was awarded to the Best Forestry Exhibit.

I.—DARTINGTON HALL, LTD.

BATH & WEST & SOUTHERN COUNTIES SOCIETY.

OBJECTS OF THE SOCIETY AND PRIVILEGES OF MEMBERSHIP.

ANNUAL EXHIBITIONS.

The Society annually holds an Exhibition in some city or town in England or Wales. Each section of the Society's district is visited at intervals, so that most Members have an opportunity of seeing the Show in their own neighbourhood every few years. Prizes to a large amount are given for Horses, Cattle, Goats, Sheep, Pigs, Farm Produce, etc. Provision is also made for the exhibition of Agricultural Implements and Machinery, Seeds, Cattle Foods, Artificial Manures, and articles of general utility. A substantially built and completely equipped Working Dairy on a large scale is a special feature of these Exhibitions. Among other features of the Annual Meeting are Shoeing and other Competitions, Poultry and Horticultural Shows, and Exhibitions illustrative of Bee-keeping, Home Industries, Art-Manufactures, Rural Education, and the Sciences connected with Agriculture and Horticulture.

Membership entitles to free admission to the Annual Exhibition, and to the Grand Stand overlooking the Horse and Cattle Ring, as well as to the use of the Members' Special Pavilion for Reading, Writing, etc.

Entries can be made by Members (elected on or before the last Tuesday in January preceding the Show) at about half the fees payable by Non-Members.

THE JOURNAL.

All Members receive free of charge the Society's Journal, which is published annually. It has for its aim the dissemination of agricultural knowledge in a popular form, and in addition to original articles by well-known agricultural authorities, it contains particulars of the Society's general operations, full reports of its experimental and research work, prize awards, financial statements, lists of Members, etc. (The price of the Journal to non-Members is 6s. 6d. post free.)

CHEMICAL AND OTHER FACILITIES.

The Society has a Consulting Chemist (Dr. J. A. Voelcker, C.I.E., M.A., F.I.C., etc.), from whom Members can obtain analyses and reports at reduced rates of charge. An arrangement has also been made under which Members of the Society can obtain, free of charge, from the National Fruit and Cider Institute at Long Ashton, analyses of cider-apples and perry-pears.

EXPERIMENTS AND DEMONSTRATIONS.

Experiments and demonstrations on crops and live stock are carried out in various parts of the Kingdom, in close co-operation with the principal Research Stations, the Society's special care being to bring scientific results into relation with practical farming. *Members are invited to take part in these and will receive reports thereon in the Journal.*

ART MANUFACTURES, EDUCATION, FORESTRY, etc.

One of the objects for which the Society was founded was the encouragement of Arts as well as Agriculture, and, to this end, exhibitions are held of Art Manufactures and of work representative of Arts and Handicrafts. Exhibitions are also held illustrating School Craft as a branch of Education; the Science of Forestry, etc.

TERMS OF MEMBERSHIP.

ANNUAL SUBSCRIPTIONS.

Ordinary Members, not less than	.. .. .	£1
Tenant Farmers, the rateable value of whose holding does not exceed £200 a year, not less than	.. .. .	10s.

Governors who are eligible for election as President, or Vice-President, and who subscribe not less than £2, are entitled in addition to the privileges already mentioned, to an extra Season Ticket for the Annual Exhibition and for the Grand Stand, etc., on application to the Secretary. Governors subscribing more than £2 are entitled to a further ticket for every additional £1 subscribed.

Members subscribing less than £1 are entitled to all the privileges of Membership except that of entering Stock at reduced fees, and their admission Ticket for the Annual Show is available for *one day only* instead of for the whole time of the Exhibition.

LIFE COMPOSITIONS.

Governors may compound for their Subscriptions for future years by payment, in advance, of £20; and Members by payment, in advance, of £10. Governors and Members who have subscribed for 20 years may become Life Members on payment of half these amounts.

Any person desirous of joining the Society can be proposed by a Member, or by the Secretary, 3, Pierrepont Street, Bath.

Telegraph and Telephone—3010, Bath.

BATH & WEST & SOUTHERN COUNTIES SOCIETY.

GENERAL LAWS.

As revised in accordance with the Report of a Special Committee ; which Report was received and adopted by the Annual General Meeting of Members, held on May 19, 1923.

COMPOSITION OF THE SOCIETY.

I. The Society shall consist of a President, Vice-Presidents, Trustees, Council, Treasurer, Secretary, and Members.

OBJECTS.

II. The Society shall have the following objects :—

- (a) To hold Exhibitions of breeding stock, agricultural implements, and such other articles connected with agriculture, horticulture, arts, manufactures or commerce, as may be determined upon by the Council.
- (b) To conduct practical and scientific investigations in agriculture and horticulture.
- (c) To promote technical education in agriculture and horticulture by providing means of systematic instruction.
- (d) To publish a Journal for circulation.

SUBSCRIPTIONS.

III. The Annual Subscription for Members shall be as follows :—

Governors (who are eligible for election as President or Vice-President), not less than	..	..	..	..	£2
Ordinary Members, not less than	..	..	..	..	£1
Tenant Farmers (the rateable value of whose holdings does not exceed £200 a year), not less than	..	..	..	..	10s.

IV. The payment of £20 in one sum shall constitute a Governor for life, and of £10 in one sum, an Ordinary Member for life ; but any Governor who has subscribed not less than £2 annually for a period of twenty years may become a Life Governor on the further payment of £10 in one sum ; and any Ordinary Member, who has subscribed not less than £1 annually for the same period may become a Life-Member on the further payment of £5 in one sum.

V. Subscriptions shall become due and be payable in advance on the 1st of January in each year or as soon as the Subscriber has been elected a Member. When the election takes place during the last quarter of the year, the subscription payable on election will be considered as applying to the ensuing year.

VI. A Member shall be liable to pay his subscription for the current year unless he shall have given notice, in writing, to the Secretary before January 1st, of his intention to withdraw.

GOVERNING BODY.

VII. The entire management of the Society—including the making of Bye-laws, election of Members, determining the Prizes to be awarded, appointing Committees, fixing the places of Meetings and Exhibitions, appointing or removing the Treasurer, Secretary, and such other officers as may be required to carry on the business of the Society—shall be vested in the Council, who shall report its proceedings at the Annual Meeting of the Society.

VIII. The Council shall consist of the Patron (if any), President, Vice-Presidents, Trustees, and Treasurer (who shall be *ex-officio* Members), and of sixty-six elected Members.

ELECTION OF PRESIDENT, VICE-PRESIDENTS, TRUSTEES AND COUNCIL.

IX. The election of a President for the year, of any additional Vice-Presidents, or Trustees, and of the Members of Council representing the Divisions named in Law X., shall take place at the Annual Meeting of the Society, and they shall enter into office at the conclusion of the Exhibition during which such Annual Meeting has been held.

X. The sixty-six Members of the Council referred to in Laws VIII. and IX. shall consist of fifty-eight persons residing or representing property in the following Divisions, viz. :—

Twelve from the Counties of Devon and Cornwall, which shall be called the Western Division.

Twenty-four from the Counties of Somerset, Dorset and Wilts, which shall be called the Central Division ;

Twelve from the Counties of Hants, Berks, Oxon, Bucks, Middlesex, Surrey, Sussex and Kent, which shall be called the Southern Division ; and

Ten from the Counties of Worcester, Gloucester, Hereford and Monmouth, and the Principality of Wales, which shall be called the North-Western Division.

The remaining eight shall be elected (irrespective of locality) from the general body of members, and shall form a Division which shall be called the " Without Reference to District " Division.

XI. One half of the elected Members in each of the five Divisions named in Law X. shall retire annually by rotation, but shall be eligible for re-election.

XII. The Council shall have power to nominate a President, Vice-Presidents, Trustees, and Members of Council for the approval of the Annual Meeting, and to fill up such vacancies in their own body as are left after the Annual Meeting, or as may from time to time occur during the interval between the Annual Meetings.

XIII. Nominations to offices, election to which is vested in the whole body of Members must reach the Secretary ten days before the meeting, at which such vacancies are to be filled up.

MEETINGS.

XIV. The Annual Meeting of the Society shall take place during the holding of the annual Exhibition.

XV. Special General Meetings of the Society may be convened by the President on the written requisition of not less than three Members of the Council ; and all Members shall have ten days' notice of the object for which they are called together.

XVI. No Member of less than three months' standing, or whose subscription is in arrear, shall be entitled to vote at a Meeting.

EXHIBITIONS.

XVII. The Annual Exhibition of the Society shall be held in different Cities or Towns in successive years.

XVIII. All Exhibitors shall pay such fees as may be fixed by the Council. Members subscribing not less than £1 per annum, who have been elected previous to February 1st, and have paid the subscription for the current year, or if elected later, who pay a subscription for the previous year and the current subscription, before the date of closing of entries, shall be entitled to exhibit at such reduction in these fees as the Council shall determine.

PRIZES.

XIX. All prizes offered at the cost of the Society shall be open for competition to the United Kingdom.

XX. No person intending to compete for any prize offered at the annual Exhibition shall be eligible to act as a judge or to have any voice in the selection of judges to award the premiums in the department in which he exhibits.

XXI. If it be proved to the satisfaction of the Council that any person has attempted to gain a prize in this, or in any other society, by a false certificate or by a misrepresentation of any kind, such person shall thereupon be, for the future, excluded from exhibiting in this Society.

JOURNAL.

XXII. The Proceedings of the Society, Awards of Prizes, Financial Statements and Lists of Officers, Governors, and Members, shall be printed annually in the Society's *Journal*, and every Governor and Member, not in arrear with his subscription, shall be entitled to receive one copy, free of expense, and there shall be an additional number printed for sale.

POLITICS.

XXIII. No motion or question of a political tendency shall be introduced at any meeting of the Society, otherwise than with the consent of two-thirds of the members present at any meeting, and then only after 14 days' notice in writing.

ALTERATIONS IN LAWS.

XXIV. No new General Law shall be made or existing one altered, added to or rescinded, except at an Annual or Special General Meeting, and then only provided that a statement of particulars, in writing, shall have been sent to the Secretary at least twenty-one days previous to the Meeting at which the question is to be considered.

ANNUAL EXHIBITIONS.

Year.	Place Visited.	Local Subscription.	Prizes.			Total Local Contribution.	President.	Admissions.		Total.
			Local Committee.	Local Societies.	Local Residents.			On 2/6 Days.	On 1/- Days.	
		£	£	£	£	£				
1856	Yeovil .	450	..	..	..	450	C. A. Moody, M.P.	..	..	..
1857	Newton Abbot	700	..	..	..	700	Lord Courtenay	..	..	..
1858	Cardiff .	800	..	..	..	800	Lord Courtenay	..	..	..
1859	Barnstaple	800	85	..	81	966	John Sillifant	..	..	..
1860	Dorchester	900	..	..	..	900	Lord Rivers	..	..	..
1861	Truro .	900	..	..	..	900	J. W. Buller, M.P.	10,709	11,949	22,658
1862	Wells .	900	..	..	..	900	Sir T. D. Acland, Bart.	15,201	14,220	29,421
1863	Exeter .	900	..	..	..	900	Marquis of Bath	10,378	4,775	15,353
1864	Bristol .	1000	106	..	50	1156	Earl Fortescue	15,635	19,284	34,919
1865	Hereford	900	358	..	..	1258	Lord Taunton	22,377	65,678	88,055
1866	Salisbury	900	57	..	..	957	Earl of Portsmouth	16,575	35,261	51,836
1867	Salisbury	..	..	..	..	900	J. Tremayne	7,288	18,737	26,025
1868	Falmouth	900	..	..	..	900	Sir J. T. B. Duckworth, Bart.	7,502	16,702	24,204
1869	Southampton	900	132	..	18	1050	Earl of Carnarvon	11,393	19,495	30,888
1870	Taunton .	900	..	..	..	900	Sir S. H. Northcote, Bart., C.B., M.P.	15,340	41,290	56,630
1871	Guildford	900	110	..	..	1010	Earl of Cork	17,952	33,653	51,605
1872	Dorchester	800	..	..	10	810	Duke of Marlborough, K.G.	10,656	23,406	34,062
1873	Plymouth	800	..	400	..	1200	Earl of Mount-Edgumbe	12,791	21,517	34,308
1874	Bristol .	800	403	..	..	1203	Sir Massey Lopes, Bart., M.P.	16,665	45,744	62,409
1875	Croydon .	800	245	..	..	1045	R. Benyon, M.P.	37,329	72,791	110,120
1876	Hereford	800	381	..	..	1181	Earl of Ducie	14,518	26,028	40,546
1877	Bath .	800	215	..	..	1015	Marquis of Lansdowne	16,396	32,645	49,041
1878	Oxford .	800	..	170	6	976	Earl of Jersey	27,625	48,852	76,477
1879	Exeter .	800	..	..	10	810	Earl of Morley	12,414	26,995	39,409
1880	Worcester	800	..	254	..	1054	Earl of Coventry	14,634	40,533	55,167
								8,415	37,675	46,090

ANNUAL EXHIBITIONS—continued.

Year.	Place Visited.	Local Subscription.	Prizes.			Total Local Contribution.	President.	Admissions.			
			Local Committee.	Local Societies.	Local Residents.			On 5/- Day.	On 2/6 Days.	On 1/- Days.	Total.
		£	£	£	£	£					
1881	Tunbridge Wells	800	245	34	..	1079	Marquis of Abergavenny	..	13,368	33,236	46,604
1882	Cardiff	800	200	198	17	1215	Lord Tredegar	..	23,941	38,680	62,621
1883	Bridgwater	800	78	..	..	878	Lord Brooke, M.P.	..	17,171	31,241	48,412
1884	Maidstone	800	310	33	75	1218	Viscount Holmesdale	..	13,501	31,053	44,554
1885	Brighton	800	227	33	82	1142	Viscount Hampden	..	9,637	39,851	49,488
1886	Bristol	800	525	..	..	1325	Lord Carlingford	..	29,580	70,999	100,579
1887	Dorchester	800	..	112	..	912	Earl of Ilchester	..	8,860	29,846	38,706
1888	Newport (Mon.)	800	100	..	..	900	Lord Tredegar	..	14,878	38,567	53,445
1889	Exeter	800	..	..	10	810	Lord Clinton	..	16,405	36,195	52,600
1890	Rochester	800	294	..	26	1120	Earl of Daruley	..	3,480	48,314	51,794
1891	Bath	800	50	103	100	1053	Earl Temple	..	23,510	52,185	75,695
1892	Swansea	800	200	100	10	1110	Sir J. D. T. Llewellyn, Bart.	..	18,364	54,609	72,973
1893	Gloucester	800	400	..	..	1200	Lord Fitzhardinge	..	14,272	40,368	54,640
1894	Guildford	800	174	..	10	984	Earl of Onslow	..	8,671	29,813	38,484
1895	Taunton	800	85	160	10	1035	Viscount Portman	..	13,181	30,111	43,292
1896	St. Albans	800	152	..	..	952	Earl of Clarendon	..	12,056	22,386	34,436
1897	Southampton	800	50	..	..	850	Lord Montagu of Beaulieu	..	8,284	33,750	42,034
1898	Cardiff	800	200	..	..	1000	Lord Windsor	..	13,101	42,501	55,602
1899	Exeter	800	..	225	5	1030	Lord Clinton	..	16,091	39,832	55,923
1900	Bath	800	100	150	10	1060	Marquis of Bath	..	954	36,814	49,369
1901	Croydon	800	115	..	..	915	(H.R.H. The Duke of Cornwall, and York, K.G.)	1,196	9,362	30,693	41,251
1902	Plymouth	800	105	100	36	1041	Earl of Morley	842	12,629	40,565	54,036
1903	Bristol	800	434	50	61	1345	Duke of Beaufort	..	34,528	74,352	108,880
1904	Swansea	800	350	..	..	1150	Lord Windsor	..	28,265	50,562	78,827
1905	Nottingham	800	..	218	..	1018	Duke of Portland, K.G.	..	8,913	45,964	54,877
1906	Swindon	800	..	200	50	1050	Earl of Radnor	..	7,838	42,013	49,851

ANNUAL EXHIBITIONS—continued.

Year.	Place Visited.	Local Subscrip- tion.	Prizes.			Total Local Contri- bution.	President.	Admissions.				
			Local Com- mittee.	Local Societies.	Local Resi- dents.			On 5/- Day.	On 2/6 Days.	On 3/- Days.	On 1/- Days.	Total.
1907	Newport (Mon.)	£ 800	£ 201	£ 51	£ 29	£ 1081	H.R.H. The Prince of Wales, K.G.	..	16,236		37,819	54,055
1908	Dorchester	800	100	25	..	925	Lord Digby	..	12,227		20,350	32,577
1909	Exeter	800	..	100	..	900	Lord Clinton	..	14,898		41,891	56,789
1910	Rochester and Chatham	800	117	..	..	917	Earl of Darnley	..	5,892		20,105	25,997
1911	Cardiff	800	195	110	10	1115	Marquis of Bute	..	16,213		40,588	56,801
1912	Bath	800	100	100	..	1000	Marquis of Bath	..	13,843		40,935	54,786
1913	Truro	800	35	115	39	918	Viscount Falmouth	..	12,918		44,700	57,618
1914	Swansea	800	301	..	..	1101	Sir J. T. D. Llewellyn, Bart.	..	17,957		67,805	85,762
1915	Worcester	400	..	257	..	657	The Earl of Coventry	..	7,760		28,013	35,773
1916 to 1919	No Shows						The Earl of Coventry	..	4/-		2/-	
1919	Salisbury	800	24	105	131	1060	The Earl of Radnor	..	19,392		25,255	44,647
1920	Bristol	800	1000	354	..	2154	The Lord Bledisloe, K.B.E.	5105	36,068		58,473	99,646
1921	Plymouth	800	132	281	..	1213	H.R.H. The Prince of Wales, K.G.	4124	19,289	20,558	34,856	58,269
1922	Swansea	800	295	..	200	1295	H.R.H. The Prince of Wales, K.G.	434	12,286		78,162	115,345
1923	Taunton	800	29	100	..	929	Sir Dennis F. Boles, Bart. C.B.E., D.L.	2267	9,693	17,882	16,121	45,963
1924	Maidstone	800	122	100	..	1022	Col. F.S.W. Cornwallis, C.B.E., D.L.	2019	3,618	7,206	25,653	38,496
1925	Watford	800	28	171	..	999	The Earl of Clarendon	1442	2,667	4,869	14,271	23,249
1926	Bath	800	149	..	..	949	H.R.H. The Duke of York, K.G.	2674	6,784	11,961	28,093	49,512
1927	Dorchester	800	184	100	13	1097	Lord Wynford, D.S.O.	1772	5,543	18,152	19,834	45,301
1928	Swindon	800	..	100	10	910	Maj.-General T. C. P. Calley, C.B., M.V.O.	4061	4,927	7,658	13,635	30,281
1929	Torquay	800	..	250	16	1066	Lord Midmay of Flete, P.C., T.D.	7061	15,944	12,771	15,100	50,876
1930	Yeovil	800	450	50	..	1300	The Duke of Beaufort, G.C.V.O.	4314	14,363	25,577	15,725	59,979
1931	Exeter	800	10	150	..	960	Lord Digby, D.S.O., M.C.					

MEMBERS' PRIVILEGES.

ANALYSES OF FERTILISERS, FEEDING STUFFS, WATERS, SOILS, &c.

(Applicable only to the case of Persons who are not commercially engaged in the manufacture or sale of any substance sent for Analysis).

Members of the Bath and West and Southern Counties Society, who may also be Members of other Agricultural Societies, are particularly requested in applying for Analyses, to state that they do so as Members of the first-named Society.

The following are the rates of charges for Chemical Analyses to Members of the Society.

These privileges are applicable only when the analyses are for *bona-fide* agricultural purposes, and are required by Members of the Society for their own use and guidance in respect of farms or land in their own occupation and within the United Kingdom.

The analyses are given on the understanding that they are required for the individual and sole benefit of the Member applying for them, and must not be used for other persons, or for commercial purposes.

Land or estate agents, bailiffs, and others, when forwarding samples are required to state the names of those Members on whose behalf they apply.

Members are also allowed to send for analysis under these privileges, any manures or feeding-stuffs to be used by their outgoing tenants, or which are to be given free of cost to their occupying tenants.

The analyses and reports may not be communicated to either vendor or manufacturer, except in cases of dispute.

Members are requested, when applying for an analysis, to quote the number in the subjoined schedule under which they wish it to be made.

No.		
1.—	An opinion of the purity of bone-dust or oil-cake (each sample)	2s. 6d.
2.—	An analysis of sulphate or muriate of ammonia, or of nitrate of soda, together with an opinion as to whether it be worth the price charged	5s.
3.—	An analysis of guano, showing the proportion of moisture, organic matter, sand, phosphate of lime, alkaline salts and ammonia, together with an opinion as to whether it be worth the price charged	10s.
4.—	An analysis of mineral superphosphate of lime for soluble phosphates only, together with an opinion as to whether it be worth the price charged	5s.
5.—	An analysis of superphosphate of lime, dissolved bones, etc., showing the proportions of moisture, organic matter, sand, soluble and insoluble phosphates, sulphate of lime and ammonia, together with an opinion as to whether it be worth the price charged	10s.
6.—	An analysis of bone-dust, basic slag, or any other ordinary artificial manure, together with an opinion as to whether it be worth the price charged	10s.
7.—	An analysis of compound artificial manures, animal products, refuse substances used for manure, etc.	from 10s. to £1
8.—	An analysis of limestone, showing the proportion of lime	7s. 6d.
9.—	An analysis of limestone, showing the proportion of lime and magnesia	10s.
10.—	An analysis of limestone or marls, showing the proportion of carbonate, phosphate, and sulphate of lime and magnesia, with sand and clay	10s.
11.—	Partial analysis of a soil, including determinations of clay, sand, organic matter, and carbonate of lime	£1
12.—	Complete analysis of a soil	£3
13.—	An analysis of oil-cake or other substances used for feeding purposes, showing the proportion of moisture, oil, mineral matter, albuminous matter, and woody fibre as well as of starch, gum, and sugar in the aggregate; and an opinion of its feeding and fattening or milk-producing properties	10s.
14.—	Analysis of any vegetable product	10s.
15.—	Determination of the "hardness" of a sample of water before and after boiling	5s.
16.—	Analysis of water of land-drainage, and of water used for irrigation	£1
17.—	Analysis of water used for domestic purposes	£1 10s
18.—	An analysis of milk (to assist Members in the management of their Dairies and Herds, <i>bona-fide</i> for their own information and not for trade purposes, nor for use in connection with the Sales of Food and Drugs Acts)	5s.
19.—	Personal consultation with the Consulting Chemist. (To prevent disappointment it is suggested that Members desiring to hold a consultation with the Consulting Chemist should write to make an appointment)	5s.
20.—	Consultation by letter	5s.
21.—	Consultation necessitating the writing of three or more letters	10s.

Members wishing to exercise their privileges on the above-named terms, should forward their samples for examination by *post* or *parcel prepaid*, to the Consulting Chemist, DR. JOHN AUGUSTUS VOELCKER, C.I.F., M.A., F.I.C., Stuart House, 1, Tudor Street, London, E.C.

The fees for analysis must be sent to the Consulting Chemist at the time of application.

GUIDE TO PURCHASERS OF FERTILISERS AND FEEDING STUFFS.

Purchasers are recommended in every case to insist upon having an *Invoice* given to them. This invoice should set out clearly:—

In the case of **Fertilisers**—

- (1) The **name** of the fertiliser ;
- (2) Whether the fertiliser be artificially **compounded** or not ;
- (3) The **analysis** guaranteed in respect of the principal fertilising ingredients.

In the case of **Feeding-Stuffs**—

- (1) The **name** of the article ;
- (2) The **description** of the article ; whether it has been made from one substance or seed only, or from more than one ;
- (3) The **analysis** guaranteed in respect of Oil and Albuminoids.

NOTE.—The use of terms “Linseed-cake,” “Cotton-cake,” etc., implies that these cakes shall be “pure,” and purchasers are recommended to insist upon these terms being used without any qualification, such as “95 per cent.,” “as imported,” etc. “Oil-cake” should be avoided.

Members of the Society should see that the **Invoices** agree accurately with the orders given by them, and, in giving these orders, they should stipulate that the goods come up to the guarantee set out in the following list, and that they be sold **subject to the analysis and report of the Consulting Chemist of the Bath and West and Southern Counties Society.**

FERTILISERS.

Raw Bones, Bone-meal, or Bone-dust to be guaranteed “**PURE**,” and to contain not less than 45 per cent. of Phosphate of Lime, and not less than 4 per cent. of Ammonia.

Steamed or “Degelatinised” Bones to be guaranteed “**PURE**,” and to contain not less than 55 per cent. of Phosphate of Lime, and not less than 1 per cent. of Ammonia.

Mineral Superphosphate of Lime to be guaranteed to contain a certain percentage of “Soluble Phosphate.” (From 25 to 28 per cent. of Soluble Phosphate is an ordinarily good quality.)

Dissolved Bones to be guaranteed to be “made from raw bone and acid only,” and to be sold as containing stated percentages of Soluble Phosphate, Insoluble Phosphates, and Ammonia.

Compound Artificial Manures, Bone Manures, Bone Compounds, etc., to be sold by analysis stating the percentages of Soluble Phosphate, Insoluble Phosphates and Ammonia contained.

Basic Slag to be guaranteed to contain a certain percentage of Phosphoric Acid and to be sufficiently finely ground that 80 to 90 per cent. passes through a sieve having 10,000 meshes to the square inch.

Peruvian Guano to be described by that name, and to be sold by analysis stating the percentages of Phosphates and Ammonia.

Sulphate of Ammonia to be guaranteed to be “**PURE**,” and to contain not less than 24 per cent. of Ammonia.

Nitrate of Soda to be guaranteed to be “**PURE**,” and to contain 95 per cent. of Nitrate of Soda.

FEEDING-STUFFS.

Linseed Cake, Cotton Cake (Decorticated and Undecorticated), and **Rape Cake** (for feeding purposes) to be pure, *i.e.*, prepared *only* from one kind of seed from which their name is derived, and to be in sound condition. The report of the Consulting Chemist of the Bath and West and Southern Counties Society to be conclusive as to the "purity" or otherwise of any feeding-stuffs. The percentages of Oil and Albuminoids must also be guaranteed.

Mixed Feeding Cakes, Meals, etc., to be sold on a guaranteed analysis.

All Feeding-Stuffs to be sold in sound condition, and to contain nothing of an injurious nature or worthless for feeding purposes.

INSTRUCTIONS FOR SELECTING AND SENDING SAMPLES FOR ANALYSIS.

GENERAL RULES.

1. A sample taken for analysis should be fairly *representative of the bulk* from which it has been drawn.
2. The sample should reach the Analyst *in the same condition* as it was at the time when drawn.

FERTILISERS.

When Fertilisers are delivered in bags, select four or five of these from the bulk, and either turn them out on a floor and rapidly mix their contents, or else drive a shovel into each bag and draw out from as near the centre as possible a couple of shovelfuls of the manure, and mix these quickly on a floor.

Halve the heap obtained in either of these ways, take one-half (rejecting the other) and mix again rapidly, flattening down with the shovel any lumps that appear. Repeat this operation until at last only some three or four pounds are left.

From this fill three tins, holding from $\frac{1}{2}$ lb. to 1 lb. each, mark, fasten up and seal each of these. Send one for analysis, and retain the others for reference.

Or—the manure may be put into glass bottles provided with well-fitting corks, the bottles should be labelled and the corks sealed down. The sample sent for analysis can be packed in a wooden box and sent by post or rail.

When manures are delivered in bulk, portions should be successively drawn from *different parts* of the bulk, the heap being turned over now and again. The portions drawn should be thoroughly mixed, sub-divided, and, finally, samples should be taken as before, except that when the manure is coarse and bulky it is advisable to send larger samples than when it is in a finely-divided condition.

FEEDING-STUFFS.

Linseed, Cotton, and other Feeding Cakes.—If a single cake be taken, three strips should be broken off right across the cake and from the middle portion of it, one piece to be sent for analysis, and the other two retained for reference. Each of the three pieces should be marked, wrapped in paper, fastened up and sealed. The piece forwarded for analysis can be sent by post or rail.

A more satisfactory plan is to select four to six cakes from different parts of the delivery, then break off a piece about four inches wide from the middle of each cake, and pass these pieces through a cake-breaker. The broken cake should then be well mixed, and three samples of about 1 lb. each should be taken and put in tins or bags duly marked, fastened, and sealed as before. One of

these lots should be sent for analysis, the remaining two being kept for reference. It is advisable also, with the broken pieces, to send a small strip from an unbroken cake.

Feeding Meals, Grain, etc.—Handfuls should be drawn from the centre of half-a-dozen different bags of the delivery; these lots should then be well mixed, and three $\frac{1}{2}$ lb. tins or bags filled from the heap, each being marked, fastened up, and sealed. One sample is to be forwarded for analysis and the others retained for reference.

SOILS, WATERS, &c.

Soils.—Have a wooden box made, 6 inches in length and width, and from 9 to 12 inches deep, according to the depth of soil and subsoil of the field. Mark out in the field a space of about 12 inches square; dig round in a slanting direction a trench, so as to leave undisturbed a block of soil and its subsoil 9 to 12 inches deep; trim this block to make it fit into the wooden box, invert the open box over it, press down firmly, then pass a spade under the box and lift it up gently, turn over the box, nail on the lid, and send by rail. The soil will then be received in the position in which it is found in the field.

In the case of very light, sandy, and porous soils, the wooden box may be at once inverted over the soil and forced down by pressure, and then dug out.

Waters.—Samples of water are best sent in glass stoppered Winchester bottles holding half a gallon. One such bottle is sufficient for a single sample. Care should be taken to have these scrupulously clean. In taking a sample of water for analysis it is advisable to reject the first portion drawn or pumped, so as to obtain a sample of the water when in ordinary flow. The bottle should be rinsed out with the water that is to be analysed, and it should be filled nearly to the top. The stopper should be secured with string, or be tied over with linen or soft leather. The sample can then be sent carefully packed either in a wooden box with sawdust, etc., or in a hamper with straw.

Milk.—A pint bottle should be sent in a wooden box.

GENERAL INSTRUCTIONS.

Time for Taking Samples.—All samples, both of fertilisers and feeding-stuffs, should be taken as soon after their delivery as possible, and should reach the Analyst within *ten days* after delivery of the article. In every case it is advisable that the Analyst's certificate be received before a fertiliser is sown or a feeding-stuff is given to stock.

Procedure in the event of the Vendor wishing Fresh Samples to be Drawn.—Should a purchaser find that the Analyst's certificate shows a fertiliser or feeding-stuff not to come up to the guarantee given him, he may inform the vendor of the result and complain accordingly. He should then send to the vendor *one* of the two samples which he has kept for reference. If, however, the vendor should demand that a fresh sample be drawn, the purchaser must allow this, and also give the vendor an opportunity of being present, either in person or through a representative whom he may appoint. In that case, three samples should be taken in the presence of both parties with the same precautions as before described, *each* of which should be duly packed up, labelled and *sealed* by both parties. One of these is to be given to the vendor, one is to be sent to the Analyst, and the third is to be kept by the purchaser for reference or future analysis if necessary.

All samples intended for the Consulting Chemist of the Society should be addressed (postage or carriage prepaid), to Dr. J. AUGUSTUS VOELCKER, C.I.E., M.A., F.I.C., Stuart House, 1, Tudor Street, New Bridge Street, London, E.C. Separate letters of instruction should be sent at the same time.

YEOVIL MEETING,

MAY 25, 26, 27, and 28, 1932.

PRIZES.

HORSES	..	..	..	..	..	..	..	£1,118	0	0
CATTLE ..	..	..	..	..	..	..	..	1,424	12	0
GOATS	..	..	..	..	..	..	..	28	10	0
SHEEP	..	..	..	..	..	..	..	733	9	0
PIGS ..	..	..	..	..	..	..	..	517	0	0
CIDER ..	..	..	..	..	..	..	..	70	0	0
CHEESE	..	..	..	..	..	..	..	101	0	0
CREAM CHEESE, BUTTER AND CREAM	..	..	..	..	..	..	..	50	5	0
BUTTER-MAKING AND JUNKET-MAKING	..	..	..	..	..	..	..	32	0	0
SHOEING	..	..	..	..	..	..	..	42	0	0
POULTRY	..	..	..	..	..	..	..	263	0	0
PIGEONS	..	..	..	..	..	..	..	31	15	0
RABBITS	..	..	..	..	..	..	..	35	5	0
CUPS, MEDALS, ETC.	..	..	..	..	..	..	..	350	0	0

£4,796 16 0

DONORS OF MONEY PRIZES.

Bath and West and Southern Counties Society	..	..	..	..	..	..	..	£3,714	19	0
Yeovil Agricultural Society	..	..	..	..	..	..	..	150	0	0
Yeovil Local Committee	..	..	..	..	..	..	..	10	0	0
Hunters' Improvement and National Light Horse Breeding Society	..	..	..	..	..	..	..	9	0	0
Arab Horse Society	..	..	..	..	..	..	..	25	0	0
National Pony Society	..	..	..	..	..	..	..	10	0	0
Exmoor Pony Society	..	..	..	..	..	..	..	8	0	0
Devon Cattle Breeders' Society	..	..	..	..	..	..	..	47	0	0
South Devon Herd Book Society	..	..	..	..	..	..	..	12	12	0
Shorthorn Society	..	..	..	..	..	..	..	30	0	0
Dairy Shorthorn Association	..	..	..	..	..	..	..	20	0	0
Hereford Herd Book Society	..	..	..	..	..	..	..	20	0	0
British Friesian Cattle Society	..	..	..	..	..	..	..	46	5	0
Welsh Black Cattle Society	..	..	..	..	..	..	..	15	0	0
English Aberdeen-Angus Cattle Association	..	..	..	..	..	..	..	10	0	0
Red Poll Cattle Society	..	..	..	..	..	..	..	20	0	0
Ayrshire Cattle Herd Book Society (The English Committee)	..	..	..	..	..	..	..	25	0	0
Blue Albion Cattle Society	..	..	..	..	..	..	..	15	0	0
English Jersey Cattle Society	..	..	..	..	..	..	..	10	0	0
English Guernsey Cattle Society	..	..	..	..	..	..	..	25	0	0

DONORS OF MONEY PRIZES--continued.

British Goat Society	10	0	0
Devon Closewool Sheep Breeders' Society	10	0	0
Hampshire Down Sheep Breeders' Association	30	0	0
Oxford Down Sheep Breeders' Association	10	0	0
Dorset Horn Sheep Breeders' Association	15	0	0
Dorset Down Sheep Breeders' Association	20	0	0
Exmoor Horn Sheep Breeders' Society	10	0	0
Suffolk Sheep Society	10	0	0
Ryeland Flock Book Society	10	0	0
Dartmoor Sheep Breeders and Flock Book Association	10	0	0
Kerry Hill Flock Book Society	8	0	0
Large Black Pig Society	10	0	0
National Pig Breeders' Association	26	0	0
Gloucester Old Spots Pig Society	10	0	0
National Long White Lop-Eared Pig Society	5	0	0
Oake, Woods & Co. (Ld.)	10	0	0
Ministry of Agriculture and Fisheries	10	0	0
Lord Strachie	10	0	0
Cups, Medals, etc.	350	0	0

£4,796 16 0

DONORS OF MEDALS, PLATE, ETC.

Bath and West Society.	Red Poll Cattle Society.
Shire Horse Society.	Ayrshire Cattle Society.
Corporation of Bath.	English Jersey Cattle Society.
Hunters' Improvement & National	English Guernsey Cattle Society.
Light Horse Breeding Society.	H. Leyborne Popham, Esq.
Arab Horse Society.	Dexter Cattle Society.
National Pony Society.	British Goat Society.
Shetland Pony Society.	Ryeland Flock Book Society.
Hackney Horse Society.	National Pig Breeders' Association.
Lord Digby, D.S.O., M.C.	Large Black Pig Society.
National Horse Association of Great	Gloucester Old Spots Pig Society.
Britain.	Bennett & Howard.
A Member of the Society.	National Long White Lop-eared Pig
British Show Jumping Association.	Society.
The late Chas. Morris, Esq.	Lord Mildmay of Flete.
R. M. S. Aplin, Esq.	Capewell Horse Nail Society.
Sussex Herd Book Society.	Godwin, Warren & Co. (Ld.).
British Friesian Cattle Society.	Columbian Wyandotte Club.
Aberdeen-Angus Cattle Society.	Welsunner Club.
English Aberdeen-Angus Cattle	E. J. Soyor, Esq.
Society.	

An Animal can be entered in as many Classes as it is eligible
for on payment of an additional fee in each Class. No
additional fee is, however, payable in the case of those
Prizes headed as Champion or Special Prizes.

PRIZES.

The prizes in Class 9, the Special Local Prizes, and £45 11s. towards the general prizes are offered by the Yeovil Agricultural Society.

HORSES.

Animals entered in Classes 1 to 8 must be in the Yard before 8 a.m. on
Wednesday, May 25, and must remain in the Yard till 7 p.m. on
Thursday, May 26.

First Prize.	Second Prize.	Third Prize
£	£	£

SHIRE.

(Registered or eligible for registration in the Shire
Horse Society's Stud Book).

**Entry Fees, including Box : Members, 25/- ; Non-Members,
50/- each entry. Entries close April 2, or at double fees,
April 9.**

Judge—H. W. BISHOP, Pendley Stock Farms, Tring.

CLASS.

1.—MARE, in-foal, or with foal at foot	10	5	3
2.—FILLY or COLT, foaled in 1931	10	5	3
3.—FILLY, foaled in 1930	10	5	3
4.—FILLY, foaled in 1929	10	5	3

MEDAL.

Offered by the Shire Horse Society.

(A) A Silver Medal (or the sum of £1) for the best Shire Mare, Filly, or Filly Foal, registered or eligible for registration in the Stud Book under the following conditions :—

The winner of the Medal must be a member of the Shire Horse Society at the time of the award.

No animal to be awarded a Silver Medal which has in the same year taken one of the Shire Horse Society's Gold Medals (the Royal and London Shows included).

No animal to be eligible to take more than one Silver Medal during any one year.

If not already registered in the Stud Book, the entry of the winner must be duly lodged with the Shire Horse Society.

A certificate that the Winner is free from hereditary disease, signed by the Local Society's Appointed Veterinary Inspector after his examination on the Show Ground, must be lodged with the Secretary of the Shire Horse Society, 12, Hanover Square, London, W.1. ; but Stallions licensed by the Ministry of Agriculture and Fisheries, and Stallions, Mares and Fillies passed at the previous London Show, shall be exempt from further examination when selected for Medals during the current year.

Breeders' Prizes. The Shire Horse Society will also give the sum of £1 to the breeder of the winner provided he is a Member of the Shire Horse Society and the dam of the winner is a mare registered in the Stud Book.

CHAMPION PRIZE.

(B) "THE CITY OF BATH CHALLENGE VASE."

Presented by the Corporation of Bath (Cedric Chivers, Mayor, 1923), to be competed for annually and to be held by the winner for one year. For the Best Shire animal exhibited.

Winner, 1931.—Sir GOMER BERRY, Bart.

First Prize. £	Second Prize. £	Third Prize. £
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SUFFOLK.

(Registered or eligible for registration in the Suffolk Horse Society's Stud Book).

Entry Fees, including Box : Members, 25/- ; Non-Members, 50/-. Entries close April 2, or at double fees, April 9.

Judge—P. BROWNE, Great Horringer Hall, Bury St. Edmunds.

CLASS.

5.—MARE, in-foal, or with foal at foot	10	5	3
6.—GELDING (by a registered sire), foaled in or before 1928..	10	5	3

PERCHERONS.

Entry Fees, including Box : Members, 25/- ; Non-Members, 50/-.
Entries close April 2, or at double fees, April 9.

Judge—P. BROWNE, Great Horringer Hall, Bury St. Edmunds.

7.—MARE, in-foal, or with foal at foot	10	5	3
8.—GELDING or BARREN MARE (by a registered sire), foaled in or before 1928	10	5	3

ANY AGRICULTURAL.

Animals entered in Class 9 must be in the Yard by 9 a.m. on Friday,
May 27, and can leave as soon as they have been judged and
graded.

**Entry Fees, without Box : Members, 5/- ; Non-Members, 10/-
each entry.** Entries close 12 noon on Thursday, May 26th.

9.—Working Cart Mare or Gelding, the bona-fide property of a Yeoman or Tenant Farmer residing within a radius of 15 miles from the Town Hall, Yeovil ..	5	3	2
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HUNTERS.

(For Hunter Riding Classes see page cxxxi).

Entry Fees, Classes 10 and 12 to 14, including Box : Members, 25/- ; Non-Members, 50/-. Class 11, Members, 5/- ; Non-Members, 10/- each entry. Entries close April 2, or at double fees, April 9.

Animals entered in Classes 10 to 14 must be in the Yard before 8 a.m.

on Wednesday, May 25, and must remain there till 1 p.m. on Thursday,

May 26, when they must be removed from the Yard.

Judge—E. G. E. GRIFFITH, Plasnewydd, Trefnant, Denbighshire.

	First Prize £	Second Prize. £	Third Prize. £
10.—MARE, in-foal, or with foal at foot	10	5	3
11.—FOAL, produce of Mare in Class 10	5	3	1
(NOTE.—In Class 11 Foals must be entered or they cannot compete).			
12.—FILLY, COLT or GELDING, foaled in 1931	10	5	3
13.—FILLY, COLT or GELDING, foaled in 1930	10	5	3
14.—FILLY or GELDING, foaled in 1929	10	5	3

LOCAL PRIZES.

For Exhibitors within a radius of 15 miles of the Town Hall, Yeovil.

Best local exhibit in Class 10—£2.

Best local exhibit in Class 12—£2.

Best local exhibit in Class 13—£2.

Best local exhibit in Class 14—£2.

MEDALS.

Offered by the Hunters' Improvement and National Light Horse Breeding Society.

- (G) Gold Medal for the best Hunter Brood Mare, not having previously won the Society's Gold Medal as a Brood Mare in the current year which, if unregistered, must be registered within a month of the award for a number in the Hunter Stud Book, possessing a certificate of soundness from hereditary disease under the Schedule of Diseases of the Ministry of Agriculture and Fisheries, signed by the Local Society's appointed Veterinary Inspector (who must be a Member of the Royal College of Veterinary Surgeons) after his examination on the Show Ground.

†NOTE.—All Brood Mares (except those actually holding the Society's Official Veterinary Certificate of Soundness) awarded the Society's Gold Medals in 1927 and subsequently, must comply with this condition as precedent to confirmation. No further certificates of exemption will be issued.

No animal which has taken one of the H.I. Society's Medals is eligible to compete for a second Medal in the same year except at the London, Royal and Highland Shows.

FOALING CONDITION.—The Mare must have her Foal at foot, or must produce a living foal in the current year to a Thoroughbred Horse or Registered Hunter Sire. A certificate of foaling must be produced in the second instance before the award will be confirmed.

Prize-winners only will be eligible for the Medal: Reserves and lower awards debarred.

No awards of the Society's Prizes or Medals to a Hunter named and registered in the Hunter Stud Book and subsequently entered by the owner under another name, will be recognised or confirmed unless a re-entry has been previously lodged by the owner for the Hunter Stud Book and the new name registered by the Society.

(D) PRODUCE GROUP CLASS.

The Hunters' Improvement and National Light Horse Breeding Society offers three premiums of £1 to be awarded to the owners of a Group of three Young Hunters (under 4 years old, age to be reckoned from January 1st,) by the same Thoroughbred or Registered Hunter sire and entered in Classes 12, 13 or 14, provided that not less than three groups by three separate sires compete, and that the animals in the selected group are tendered for registration in the Hunter Stud Book. Sires can have more than one group, provided there are two other sires represented. In the case of an animal doubtfully sired, such animal is not eligible to be shown in any produce group. If six or more groups compete, the offer will be increased to three premiums of £2 each, for the best group, and three premiums of £1 each for the second best group. The premiums will be paid direct to the successful exhibitors by the Hunters' Improvement and National Light Horse Breeding Society, on completion of the conditions of offer and similar premiums will also be paid by the Bath and West Society.

First Prize.	Second Prize.	Third Prize.
£	2	£

ARABS AND PONIES.

Animals entered in Classes 15 to 26 must be in the Yard after 4 p.m. on Thursday, May 26 and before 8 a.m. on Friday, May 27, and must remain in the Yard until 6 p.m. on Saturday, May 28.

Entries close April 2, or at double fees, April 9.

ARAB

Animals entered in Class 15 must be registered or accepted for registration in the Arab Horse Stud Book.

£35 towards the prizes in this Class are contributed by the Arab Horse Society.

Entry Fee: 10/- each entry

Judge—Brigadier W. H. ANDERSON, C.B.E., Cavalry Club,
127, Piccadilly, London, W.1.

CLASS.

15.—COLT, FILLY or GELDING, foaled in 1929, 1930 or 1931 .. 15 12 8
Fourth £5

SILVER MEDALS.

Offered by the Arab Horse Society.

(E) Best Colt in Class 15.

(F) Best Filly in Class 15.

POLO AND RIDING PONY.

Animals entered in Classes 16 to 19 must be entered in the National Pony Stud Book or registered in the approved Mare Register and must not exceed 15.0 hands, half-an-inch being allowed for shoes.

£10 towards the Prizes in these Classes are contributed by the National Pony Society.

Entry Fee: 10/- each entry.

Judge—Lt.-Col. G. PLEYDELL-RAILSTON, D.S.O., Whatcombe, Blandford.

16.—MARE, in foal or with foal at foot	10	5	3
17.—FILLY COLT or GELDING, foaled in 1931	10	5	3
18.—FILLY COLT or GELDING, foaled in 1930	10	5	3
19.—FILLY, COLT or GELDING, foaled in 1929	10	5	3

MEDALS.

Offered by the National Pony Society.

(G) Silver Medal for best Brood Mare in Class 16.

(H) Ditto for best Exhibit in Class 17, 18 or 19.

(I) Bronze Medal for best Foal.

NOTE.—These Medals will not be awarded unless there are at least three Ponies eligible for it when drawn from more than one Class, or in the case of a single Class, unless there is a minimum of 4 eligible Ponies in that Class.

SHETLAND PONY.

Entry Fee: 10/- each entry.

Judge—A. H. FOX-BROCKBANK, The Croft, Kirksanton,
Millom, Cumberland.

20.—MARE, not exceeding 10.2 hands, in foal, or with foal at foot	8	4	2
21.—YELD MARE, not exceeding 10.2 hands	8	4	2
22.—STALLION, not exceeding 10.2 hands, foaled in or before 1929	8	4	2

CHAMPION PRIZE.

Offered through the Shetland Pony Society.

(J) A Silver Cup, value £10, for the best animal exhibited in the Shetland Classes entered or eligible for entry in the Shetland Pony Stud Book. The Cup to be won twice in succession or 3 times in all before becoming the absolute property of the winner.
Winner, 1931.—Mrs. B. COX.

First Prize. £	Second Prize. £	Third Prize £
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EXMOOR PONY.

£8 towards the Prizes in these Classes are contributed by the Exmoor Pony Society.

Entry Fee : 10/- each entry.

Judge—R. B. PHILLPOTTS, Rora House, Liverton, Newton Abbot.

CLASS.

23.—MARE, 2 years old and over on May 25, not exceeding 12.2 hands, in foal or not in foal or with or without foal at foot. To be led	8	4	2
24.—STALLION, 2 years old and over on May 25, not exceeding 12.3 hands	8	4	2

DARTMOOR PONY.

Entry Fee : 10/- each entry.

Judge—H. J. KINGWELL, Great Aish, South Brent, S. Devon.

25.—MARE, not exceeding 12.2 hands, in foal or with foal at foot	5	3	2
26.—STALLION, not exceeding 12.3 hands	5	3	2

RIDING CLASSES.

Horses entered in other Classes can, if eligible, be also entered in the Riding Classes on payment of an additional fee of 5/- for Members and 10/- for Non-Members for each additional class.

HUNTER.

(For Hunter Breeding Classes, see page cxxx).

Entry Fees : including Box : Members, 25/- ; Non-Members, 50/-.

Entries close on April 2, or at double fees, April 9.

Animals entered in Classes 27 to 31 must be in the Yard before 8 a.m.

on Wednesday, May 25, and must remain there till 1 p.m. on Thursday, May 26 when they must be removed from the yard, unless entered in other Classes to be judged on a later day.

Judge—H. L. LANG-COATH, Greenway, Mumbles, Swansea.

27.—MARE or GELDING, foaled before 1929, that has not won a prize of £10 or over under saddle at any Show held previous to April 1, 1932, to carry under 14 stone	10	5	3
28.—MARE or GELDING, foaled before 1929, that has not won a prize of £10 or over under saddle at any Show held previous to April 1, 1932, to carry 14 stone and over	10	5	3
29.—MARE or GELDING, foaled in 1928	10	5	3
30.—MARE or GELDING, foaled before 1929 and not more than 8 years old, to carry under 14 stone	20	10	3
31.—MARE or GELDING, foaled before 1929 and not more than 8 years old, to carry 14 stone or over	20	10	3

LOCAL PRIZES.

For Exhibitors within a 15 miles radius of the Town Hall, Yeovil.

Best local exhibits in Class 30—£4, £2.

Best local exhibits in Class 31—£4, £2.

Prizes for Horses for 1932.

cxxxiii

First Prize.	Second Prize.	Third Prize.
£	£	£

MEDAL.

Offered by the Hunters' Improvement and National Light Horse Breeding Society.

- (K) Silver Medal, or the sum of £1, for the best Hunter Mare or Gelding of any age exhibited in the Saddle Classes (the property of a Member of the Hunters' Improvement and National Light Horse Breeding Society), possessing a certificate of soundness from hereditary disease under the Schedule of Diseases of the Ministry of Agriculture and Fisheries, signed by the Local Society's appointed Veterinary Inspector (who must be a member of the Royal College of Veterinary Surgeons) after his examination on the Show Ground.

Prize-winners only will be eligible for the Medal: Reserves and lower awards debarred.

CONDITIONS FOR MEDAL.

- 1.—The selected Mare (if unregistered) or the selected Gelding (if unentered) must be registered or entered within a month of the award in the Hunter Stud Book.
 - 2.—The owner of the winner must be a member of the Hunters' Improvement and National Light Horse Breeding Society, or a form of application lodged within a month of the award.
 - 3.—No animal may take more than one Medal under this Scheme in the current year, except at the London, Royal and Highland Shows.
- No awards of the Society's Prizes or Medals to a Hunter named and registered in the Hunter Stud Book and subsequently entered by the owner under another name, will be recognised or confirmed unless a re-entry has been previously lodged by the owner for the Hunter Stud Book and the new name registered by the Society.

HACK AND RIDING PONY.

ENTRIES CLOSE.

With Box—April 2, or at double fees, April 9.

Without Box—At 12 noon on the day preceding the competition.

Entry Fees: With Box, Members, 25/-; Non-Members, 50/- each entry; Without Box: Members, 5/-; Non-Members, 10/-.

Judge—Lt.-Col. G. PLEYDELL-RAILSTON, D.S.O., Whatcombe, Blandford.

Horses entered in Classes 32 to 38 only must be in the Show Yard by 12 noon on the day on which they compete, and, with the consent of the Stewards, may leave the Yard as soon as the class has been judged.

- | | | | |
|--|----|---|---|
| 32.—(Novice Class). HACK MARE or GELDING, any height, that has not won a prize of over £5 in value as a Hack at any show held previous to April 1, 1932, to be ridden on Thursday, the 2nd day of the Show | 10 | 5 | 2 |
| 33.—HACK MARE or GELDING, any height, to be ridden on Thursday, the 2nd day of the Show | 10 | 5 | 2 |
| 34.—HACK MARE or GELDING, 15 hands and over, to be ridden Side Saddle on Thursday, the 2nd day of the Show | 10 | 5 | 2 |
| 35.—HACK MARE or GELDING, under 15 hands, to be ridden on Friday, the 3rd day of the Show | 10 | 5 | 2 |
| 36.—Weight-carrying COB, not exceeding 15.1 hands, to carry not less than 14 stone. To be ridden on Friday, the 3rd day of the Show | 10 | 5 | 2 |

CHILDREN'S PONY.

(All Entries in these classes must be officially measured before entering the Ring).

- 37.—PONY, not over 14.2 hands, suitable for and to be ridden by a child over 10 and not over 15 years of age last birthday, on Friday, the 3rd day of the Show
- | | | |
|------------|---|---|
| 5 | 4 | 2 |
| Fourth £1. | | |

(In Judging the Best Riders in Class 37, competitors will have to open and shut a gate and jump a low fence).

CLASS.	First Prize.	Second Prize.	Third Prize.	Fourth Prize.
	£	£	£	£
38.—PONY, not over 13 hands, suitable for and to be ridden by a child not over 10 years of age last birthday, on Saturday, the 4th day of the Show			5	4 2
				Fourth £1.

Small Silver Cups will be presented to the best Boy and best Girl Riders in these Classes.

(L) SILVER MEDAL.

Offered by the National Horse Association of Great Britain, 12, Hanover Square, London.

For the best Child's Pony in Classes 37 and 38, ridden by a Child under 14 years of age last birthday. No Pony or Rider to take more than one Medal in the same year.

(M) CHALLENGE CUP.

Offered by Lord Digby, D.S.O., M.C.

(Ex-President (1931) of the National Pony Society.)

For the best Child's Pony exhibited in Class 37 or 38. The Cup to be won three times in succession before becoming the property of the Exhibitor.

DRIVING AND JUMPING CLASSES.

Horses entered in other Classes can, if eligible, be also entered in the Driving and Jumping Classes on payment of an additional fee of 5/- for Members and 10/- for Non-Members for each additional class. A covered shed will be provided for exhibits in the Jumping Classes.

Horses entered in the Driving and Jumping Classes only must be in the Show Yard by 12 noon on the day on which they compete, and, with the consent of the Stewards, may leave the Yard as soon as the Class has been judged.

ENTRIES CLOSE.

With Box—April 2, or at double fees, April 9.

Without Box—At 12 noon on the day preceding the competition.

Entry Fees: Classes 39 to 54. With Box, Members, 25/-; Non-Members, 50/- each entry; Without Box: Members, 5/-; Non-Members, 10/-.

DRIVING.

Judge—A. W. HICKLING, 30, Holland Villas Road, Kensington, London, W.

- 39.—(Novice Class). STALLION, MARE or GELDING, not over 14 hands, that has not previously won a prize of over £5 in value in Single Harness at any show held previous to January 1, 1932, to be driven on Thursday, the 2nd day of the Show 10 5 3 2
- 40.—(Novice Class). STALLION, MARE or GELDING, over 14 and not over 15 hands, that has not previously won a prize of over £5 in value in Single Harness at any show held previous to January 1, 1932, to be driven on Thursday, the 2nd day of the Show 10 5 3 2

DRIVING—Continued.

CLASS.

	First Prize. £	Second Prize. £	Third Prize. £	Fourth Prize. £
41.—(Novice Class). STALLION, MARE or GELDING over 15 hands that has not previously won a prize of over £5 in value in Single Harness at any Show held previous to January 1, 1932, to be driven on Thursday, the 2nd day of the Show ..	10	5	3	2

MEDAL.

Offered by the Hackney Horse Society under the Conditions stated below.

(N) A Silver Medal for the best Mare or Horse exhibited in Classes 39 to 41.

42.—Pair of MARES or GELDINGS, any height, to be driven in double harness on Friday, the 3rd day of the Show	15	7	3	2
43.—TANDEMS, MARES or GELDINGS, any height, to be driven on Friday, the 3rd day of the Show ..	15	7	3	2
44.—STALLION, MARE or GELDING, not exceeding 14 hands, to be driven on Saturday, the 4th day of the Show	15	7	3	2
45.—STALLION, MARE or GELDING, over 14 and not exceeding 15 hands, to be driven on Saturday, the 4th day of the Show	15	7	3	2
46.—STALLION, MARE or GELDING, over 15 hands, to be driven on Saturday, the 4th day of the Show ..	15	7	3	2

MEDAL.

Offered by the Hackney Horse Society under the following conditions :—

(O) A Silver Medal for the best Hackney Mare or Horse exhibited in Single Harness in Classes 44 to 46.

All Stallions, Mares or Geldings competing for the Medals must be registered in the Stud Book. Each animal must be examined by a qualified Veterinary Surgeon on the Show Ground, unless a good reason to the contrary can be shown, and a certificate of soundness must be supplied. No animal can take more than one of the Silver Harness Medals in any one year.

JUMPING.

(UNDER SHOW JUMPING ASSOCIATION RULES).

The Society reserves the right to cancel the Classes for Jumping in the event of sufficient entries not being forthcoming. In such case any entry fee paid will be returned.

Judge—Sir H. H. A. HOARE, Bart., Stourhead, Zeals, S.O., Wilts.

47.—(Novice Class). MARE or GELDING, any height, not having previously won a prize of £5 or over for jumping at any Show up to the time of judging that shall jump over the course in the best form on Thursday, the 2nd day of the Show	10	7	5	
48.—MARE or GELDING, any height, that shall jump highest on Thursday, the 2nd day of the Show ..	15	7	5	
49.—MARE or GELDING, any height, that shall jump over the course in the best form on Thursday, the 2nd day of the Show	15	7	5	2

First Prize.	Second Prize.	Third Prize.	Fourth Prize.
£	£	£	£

JUMPING—Continued.**CLASS.**

50.—MARE or GELDING, any height, that shall jump over the course in the best form on Friday, the 3rd day of the Show 15 7 5 2

51.—MARE or GELDING, any height, that shall jump highest on Friday, the 3rd day of the Show .. 15 7 5

(In Classes 48 and 51, £1 will be added to the prizes offered for every six inches over 5 feet cleared by the winning animals).

All animals in Classes 52 and 54 must be officially measured before entering the ring.

52.—Children's Jumping Class.—MARE or GELDING, not exceeding 14.2 hands, to be ridden by a child not over 15 years of age last birthday, that shall jump over the course in the best form on Friday, the 3rd day of the Show 5 4 2 1

53.—MARE or GELDING, any height, that shall jump over the course in the best form on Saturday, the 4th day of the Show 15 7 5 2

54.—Children's Jumping Class.—MARE or GELDING, not exceeding 13.2 hands, to be ridden by a child not over 10 years last birthday, that shall jump over the course in the best form on Saturday, the 4th day of the Show 4 3 2

CHAMPION CLASS.

There is no entry fee in this Class, but a special form must be filled up by the exhibitor and countersigned by a Steward before the entry can be accepted.

MARE or GELDING, any height, having won a Prize in Classes 47 to 53 that shall jump over the course in the best form on Saturday, the 4th day of the Show 20 10 5

(In this Class the whole of the Jumps will be raised at the discretion of the Stewards).

CHALLENGE CUP.

(P) A Challenge Cup value £50, to be won three times before becoming the absolute property of the winner, is offered by a Member of the Society to the winner of the first prize in the Champion Class.

Winner, 1931.—F. V. GRANGE.

SPECIAL PRIZES

Offered by the British Show Jumping Association to Members of that Association who have paid their Subscriptions for the current year.

(Q) A Silver Medal to the owner of the Pony being a prize winner making the least number of faults in Class 52, not having won a first prize value £10 in an Open Class and not having previously won the Medal this year

(R) A Silver Medal to the owner of the Horse making the least number of faults in the Champion Class, the Horse being a prize winner in the Class and not having previously won the Medal this year.

NOTICE TO EXHIBITORS OF CATTLE.

Under the Regulations of the Ministry of Health, animals from Certified Tuberculin Tested Herds licensed by the Ministry can only be exhibited under the following conditions :—

1. In special shedding provided for Certified T.T. cattle.
2. If shown with other animals only after isolation from the herd and re-testing before re-inclusion.

The Society will provide special shedding for such animals at the request of exhibitors.

First Prize.	Second Prize.	Third Prize.
£	£	£

CATTLE.

Entry Fees: Members, 20/-; Non-Members, 40/- each entry.

The Local Prizes in Classes 55, 73, 86, 104, 111 and 118 are open only to residents within a 15 miles radius of the Town Hall, Yeovil

DEVON.

Judge—G. C. SKINNER,, Pound, Bishops Lydeard, Som.

£37 towards the prizes in the Devon Classes and the Champion Prizes are contributed by the Devon Cattle Breeders' Society.

CLASS.

55.—Cow or HEIFER, in-Milk, or in calf, calved in or before 1929	10	5	2
56.—HEIFER, calved in 1930	10	5	2
57.—HEIFER, calved in 1931	10	5	2
58.—BULL, calved in or before 1929	10	5	2
59.—BULL, calved in 1930	10	5	2
60.—BULL, calved in 1931	10	5	2

(In case of insufficient entries Classes 61 and 62 will be subject to cancellation under Regulation 34).

61.—Dairy Cow or First Calf Heifer, in-Milk or in calf, the property of a member of the Devon Cattle Breeders' Society and entered in the Dairy Section of the Herd Book	10	5	2
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(The only First-Calf Heifers eligible to compete, will be those entered in the Dairy Section of Vol. 55).

62.—DAIRY BULL, born previous to January 1, 1932, entered in the Dairy Section of the Devon Herd Book, Dam and Sire's Dam having yielded a minimum of 6,000lbs. Milk during a Government stipulated year, Volume and page of such entry to be stated when entering	10	5	2
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LOCAL PRIZES.

Best Local exhibits in Class 55	£3, £2
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CHAMPION PRIZES.

Best Cow or Heifer, exhibited in the Devon Classes	5
Best Bull ditto	5

THE "MORRIS" CUP."

Given by the late Chas. Morris, Esq.

For the best Cow in the Devon Classes.

This Cup is awarded alternately at the Bath and West and Devon County Shows.

SOUTH DEVON.

Judge—B. BUTLAND, Leigham, Plympton.

63.—Cow, calved before 1929, in-calf or having had a full-time calf on or after Jan. 1, 1932	10	5	2
64.—HEIFER, calved in 1930	10	5	2
65.—HEIFER, calved in 1931	10	5	2
66.—BULL, calved before 1931	10	5	2
67.—BULL, calved in 1931	10	5	2

CHAMPION PRIZES.

Offered by the S. Devon Herd Book Society.

Best Cow or Heifer exhibited in the S. Devon Classes	£4 4s.
Best Bull ditto	£4 4s.

SHORTHORN.

Judge—J. CROMBIE, Bapton, Cudham, Sevenoaks, Kent.

CLASS.

	First Prize. £	Second Prize. £	Third Prize. £
68.—COW or HEIFER, in-Milk, calved in or before 1929	10	5	2
69.—HEIFER, calved in 1930	10	5	2
70.—HEIFER, calved in 1931	10	5	2
71.—BULL, calved before 1931	10	5	2
72.—BULL, calved in 1931	10	5	2

CHAMPION PRIZE.

Offered by the Shorthorn Society.

Best Bull in the Shorthorn or Dairy Shorthorn Classes entered in or eligible for entry in Coates's Herd Book, with Silver Medal to the Breeder

10

DAIRY SHORTHORN.

Judge—A. LUCKIN, Orford, Wisborough Green, Billingshurst, Sussex.

The First Prizes in Classes 74 and 76 (and a Silver Medal to the Breeder of the winners) are offered by the Shorthorn Society and the First Prize in Class 78 by the Dairy Shorthorn Association.

Animals entered in Classes 78 and 75 can also be entered in Classes 74 and 76 on payment of an additional entry fee of 10/- for Members and £1 for non-Members.

73.—PEDIGREE COW, in-milk, calved in or before 1928	10	5	2
74.—PEDIGREE COW, in-Milk, calved in or before 1928, eligible for, and entered in Coates's Herd Book, or pedigree accepted for such entry previous to the Show, and not having previously won a similar prize offered by the Shorthorn Society in 1932, to be milked in the Ring before judging, under Conditions 54 ..	10	5	2
75.—PEDIGREE HEIFER, in-milk, calved in or after 1929 ..	10	5	2
76.—PEDIGREE HEIFER, calved in or after 1929, eligible for and entered in Coates's Herd Book, or Pedigree accepted for such entry previous to the Show, and not having previously won a similar prize offered by the Shorthorn Society in 1932, to be milked in the Ring before Judging, under Conditions 54 ..	10	5	2
77.—PEDIGREE BULL, calved before 1931	10	5	2
78.—PEDIGREE BULL, calved in 1931, entered or pedigree provisionally accepted for entry in Coates's Herd Book and registered or provisionally accepted for registration in the Year Book of the Dairy Shorthorn Association, and entries must be accompanied by a certificate signed by the Secretary of the Association to this effect. (An animal having taken one of these prizes is not eligible to compete again the same year except at the R.A.S.E. Show). The Prizes will not be awarded in this Class unless there are at least 5 entries and 3 exhibitors	10	5	2

SPECIAL PRIZE.

Offered by the Dairy Shorthorn Association

Best Bull in Class 78, registered or provisionally accepted for registration in the Year Book of the Dairy Shorthorn Association and qualified in accordance with conditions No. 55

10

LOCAL PRIZES.

Best local exhibits in Class 73

£3, £2

SILVER CUP.

Offered by R. M. S. Applin, Esq.

For the best Pedigree Bull in the Dairy Shorthorn Classes exhibited by a resident within a radius of 15 miles of the Town Hall, Yeovil.

Prizes for Cattle for 1932.

CXXXIX

	First Prize. £	Second Prize. £	Third Prize. £
HEREFORD.			
Judge—P. H. T. PRICE, Abercray, Sennybridge, Brecon.			
CLASS			
79.—Cow, in-milk, calved before Sept. 1, 1930	10	5	2
80.—HEIFER, calved on or after Sept. 1, 1930	10	5	2
81.—BULL, calved before September 1, 1930	10	5	2
82.—BULL, calved on or after September 1, 1930	10	5	2

CHAMPION PRIZES.

Offered by the Hereford Herd Book Society.

Best registered Cow or Heifer in the Hereford Classes	10
Best registered Bull in ditto —	10

SUSSEX.

Judge—Rev. F. S. SCLATER, The Manor House, Newick, Sussex.

83.—Cow or HEIFER, in-Milk, calved before 1930	10	5	2
84.—HEIFER, calved in 1930 or 1931	10	5	2
85.—BULL, any age	10	5	2

SILVER MEDALS.

Offered by the Sussex Herd Book Society.

Best Cow or Heifer in the Sussex Classes registered or tendered for entry in the Herd Book.
Best Bull in ditto, ditto.

BRITISH FRIESIAN.

Judge—W. MARRIAGE, Bradbourne Farm, Sevenoaks, Kent.

One fourth of the prize money awarded and the Silver Medals in these Classes are offered by the British Friesian Cattle Society, and animals entered must be registered in the B.F.C.S. Herd Book proper, those registered in Supplementary Section not being eligible.

86.—Cow or HEIFER, any age, in-Milk	10	5	2
87.—HEIFER, not in Milk, calved in 1930	10	5	2
88.—HEIFER, calved in 1931	10	5	2
89.—BULL, calved before 1931	10	5	2
90.—BULL, calved in 1931	10	5	2

LOCAL PRIZES.

Best local exhibits in Class 86	£3, £2
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SILVER MEDALS.

Best Cow or Heifer in the British Friesian Classes.
Best Bull in ditto.

WELSH BLACK.

Judge—W. J. GOUGH, Belmont, Bangor, N. Wales.

£15 towards the Prizes in these Classes are contributed by the Welsh Black Cattle Society.

91.—Cow or HEIFER, in Milk, calved before 1930	10	5	2
92.—HEIFER, calved in 1930 or 1931	10	5	2
93.—BULL, any age	10	5	2

ABERDEEN-ANGUS.

Judge—J. P. ROSS-TAYLOR, Mongoswalls, Duns, Berwickshire.

£10 towards the Prizes in the Aberdeen-Angus Classes are contributed by the English Aberdeen-Angus Cattle Association.

94.—Cow or HEIFER, in-Milk, calved before 1st December, 1929	10	5	2
95.—HEIFER, calved on or between 1st December, 1929 and 30th November, 1930	10	5	2
96.—HEIFER, calved on or after 1st December, 1930	10	5	2
97.—BULL, calved before 1st December, 1930	10	5	2
98.—BULL, calved on or after 1st December, 1930	10	5	2

CHAMPION PRIZES

Offered by the Aberdeen-Angus Cattle Society.

A Silver Medal for the best animal in the Aberdeen-Angus Classes.

Offered by the English Aberdeen-Angus Cattle Association.

A Silver Medal for the best animal of opposite sex to that of the Champion

A Silver Medal for the best exhibit bred in England or Wales

	First Prize. £	Second Prize. £	Third Prize. £
RED POLL.			
Judge—P. A. BAYMAN, Shenfield Place, Shenfield, Essex.			
£20 towards the Prizes in the Red Poll Classes and the Silver Medals are contributed by the Red Poll Cattle Society.			
CLASS.			
99.—Cow or HEIFER, in-Milk, calved before 1930	10	5	2
100.—HEIFER, calved in 1930	10	5	2
101.—HEIFER, calved in 1931	10	5	2
102.—BULL, calved in or before 1930	10	5	2
103.—BULL, calved in 1931	10	5	2

SILVER MEDALS.

Best Cow or Heifer in the Red Poll Classes.

Best Bull in ditto.

AYRSHIRE.

Judge—A. W. M. SILLARS, Ickham Court, Canterbury.

£20 towards the prizes in the Ayrshire Classes and the Gold Medal are contributed by the English Committee of the Ayrshire Cattle Herd Book Society, and animals entered must be registered or eligible for registration in the Society's Herd Book.

104.—Cow, in-Milk, calved before September 1, 1929	10	5	2
105.—HEIFER, in-Milk, calved on or after September 1, 1929	10	5	2
106.—HEIFER, calved on or after September 1, 1930	10	5	2
107.—BULL, calved on or after September 1, 1930	10	5	2

LOCAL PRIZES.

Best local exhibits in Class 104 £3, £2

GOLD MEDAL.

Best animal in the Ayrshire Classes.

BLUE ALBION.

£15 towards the prizes in these Classes are offered by the Blue Albion Cattle Society.

Judge—J. WALL, Bridge House, Rowsley, Derbyshire.

108.—Cow, in-Milk or in Calf, calved in or before 1929	10	5	2
109.—HEIFER, calved in 19 0 or 1931	10	5	2
110.—BULL, any age	10	5	2

JERSEY.

Judge—W. BUTCHER, Ecclesden Manor, Angmering, Sussex.

£10 towards the prizes in the Jersey Classes are contributed by the English Jersey Cattle Society.

111.—Cow, in-Milk, calved before 1929	10	5	2
112.—Cow or HEIFER, in-Milk, calved in 1929	10	5	2
113.—HEIFER, in-Milk, calved in or since 1930	10	5	2
114.—HEIFER, calved in 1931	10	5	2
115.—BULL, calved before 1930	10	5	2
116.—BULL, calved in 1930	10	5	2
117.—BULL, calved in 1931	10	5	2

LOCAL PRIZES.

Best local exhibits in Class 111 £3, £2

CHALLENGE CUP

Offered through the English Jersey Cattle Society by H. L. Popham, Esq. The Hunstrete Perpetual Silver Challenge Cup for the best Cow or Heifer entered or eligible for entry in the E. J. Herd Book exhibited in the Jersey Classes by a Member of the E.J.C. Society.
Winner, 1931.—Miss R. B. BABCOCK.

GUERNSEY.

Judge—J. LAITY, Bosistow, Porthcurnow, Cornwall.

£20 towards the prizes in the Guernsey Classes are contributed by the English Guernsey Cattle Society.

118.—Cow, in-Milk, calved before 1929	10	5	2
119.—HEIFER, in-Milk, calved in 1929	10	5	2
120.—HEIFER, calved in 1930	10	5	2
121.—HEIFER, calved in 1931	10	5	2

Prizes for Cattle and Milk Tests for 1932.

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CLASS.	First Prize £	Second Prize £	Third Prize £
122.—BULL, calved before 1930	10	5	2
123.—BULL, calved in 1930	10	5	2
124.—BULL, calved in 1931	10	5	2

LOCAL PRIZES.

Best local exhibits in Class 118 £3, £2

SPECIAL PRIZE.

Offered by the English Guernsey Cattle Society.

The "Trewithen" Silver Challenge Cup for the best Bull in Classes 122 to 124 whose dam and sire's dam have qualified in accordance with the standard required for entry in the Advanced Register of the English Guernsey Cattle Society, or the Royal Guernsey Agricultural Society, both in milk and butter fat, or alternatively in either milk or butter fat with 30 per cent. above the requirements for entry. The Cup to become the absolute property of an Exhibitor winning it three years in succession.

DEXTER.

Judge—E. P. PEYTON, Cottespoole, nr. Bromsgrove, Worcs.

125.—COW or HELPER, of any age, in-Milk, calved before 1930	10	5	2
126.—HEIFER, not in-Milk, calved in 1930 or 1931	10	5	2
127.—BULL, any age	10	5	2

SPECIAL PRIZE.

Offered by the Dexter Cattle Society.

The Devonshire Challenge Cup, for the best Animal in the Dexter Classes bred by the Exhibitor, and entered in or eligible for the Dexter Herd Book. The Cup to be won by the same Exhibitor with different animals three years in succession before becoming his absolute property.

The Certificate of Award of the Dexter Cattle Society will be given to the owner of the winning animal on each occasion the Cup is competed for.

Winner, 1931.—Mrs. C. M. L. CALVERT

Animals entered in the Breed Classes can, if eligible, be entered also, on payment of an additional fee of 10/- for Members and 20/- for Non-Members, in the Milk and Butter Test Classes.

MILK TEST.

(See Regulation 57).

Judge—A. F. SOMERVILLE, Dinder House, Wells, Somerset.

128.—Cow, in-Milk, of the Jersey, Guernsey, Kerry or Dexter breed, yielding the largest quantity of milk (at 2 or 3 Milkings under Conditions 57) showing not less than 3% Butter Fat <u>on the average of the combined milkings</u>	10	5	2
129.—Cow, in-Milk, of any other breed or cross, ditto, ditto	10	5	2

CHAMPION PRIZE.

For the animal giving the best results in Classes 128 and 129 £5

CHALLENGE CUP.

Offered by the Dexter Cattle Society.

The "Bertodano" Challenge Cup for the Dexter Cow obtaining the greatest number of points in the Milk Test Classes

Winner, 1931.—Mrs. C. M. L. CALVERT.

SPECIAL PRIZES.

Offered by the respective Breed Societies.

For the Pedigree South Devon Cow awarded the greatest number of points in Class 129	£4	4
For the Ayrshire Cow obtaining the greatest number of points in Class 129	£5	
To the owner of the Cow awarded the greatest number of points in Classes 128 & 129, provided that such Cow is a British Friesian	£25	
The British Friesian Cattle Society's sliding scale grants will be made to its Members in respect to British Friesian Cows competing and qualifying for such grants.		

First Prize.	Second Prize.	Third Prize.
£	£	£

BUTTER TEST.

(See Regulation 57).

Judge—A. F. SOMERVILLE, Dinder House, Wells, Somerset.

CLASS.

130.—Cow, of any breed or cross, obtaining the greatest number of points by the practical test of the separator and churn 10 5 2

SPECIAL PRIZES.

Offered by the English Jersey Cattle Society.

For the three best Jersey Cows obtaining the greatest number of points in the Test Gold Medal or £10,
Silver and Bronze
Medals.

Offered by the English Guernsey Cattle Society.

For the Guernsey Cow obtaining the best results £5

GOATS.

(For Regulations see Entry Forms).

Entry Fees: Members, 7/6; Non-Members, 10/- each entry.

Judge—Miss M. HARRYMAN, Gravel Leighs, Great Waltham, Essex.

£10 towards the Prizes in these Classes are contributed through the British Goat Society.

	£ s.	£ s.	s. d.
131.—FEMALE GOAT, in-Milk, any age, British Alpine, Toggenburg, British Toggenburg, Saanen or British Saanen	2 10	1 10	15 0
132.—FEMALE GOAT, in-Milk, any age, Any other variety ..	2 10	1 10	15 0
133.—GOATLING, any variety, over one but not exceeding two years	2 10	1 10	15 0
134.—FEMALE KID, any variety, not exceeding one year ..	2 10	1 10	15 0
135.—MILKING COMPETITION for QUALITY (Butter Fat only), quantity and time (two milkings)	2 10	1 10	15 0
136.—MILKING COMPETITION for QUANTITY AND TIME ONLY (three milkings)	2 10	1 10	15 0

Special Prizes offered by the British Goat Society.

A Challenge Certificate for the Best Female Goat over two years that has borne a kid.

A Challenge Certificate for the Best Dual Purpose Goat over two years that has borne a kid.

“Forteviot” Perpetual Challenge Cup for the best Goat entered in either the British Alpine, British Saanen or British Toggenburg Section of the Herd Book.

The Prizes awarded at this Show will also be included in the awards for the British Goat Society’s “Breeders” Perpetual Challenge Cup & “Stud Goat” Challenge Cup.

Note.—To compete for the Dual Purpose Challenge Certificate, a Goat must be exhibited in one of the first two Inspection Classes, and also in the Quality Milking Competition

SHEEP.

Entry Fees: Members, 17/6; Non-Members, 35/- each entry.

The Local Prizes in Classes 146, 156 and 159 are open only to residents within a radius of 15 miles of the Town Hall, Yeovil.

DEVON LONGWOOLLED.

Judge—W. G. BRENT, Warrens Park, Congdon Shop, Launceston, Cornwall.

137.—Shearling RAM	10	5	2
138.—Pen of 3 Shearling EWES	10	5	2
139.—Pen of 3 EWE LAMBS, dropped in 1932	10	5	2

First Prize. £	Second Prize. £	Third Prize. £
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DEVON CLOSE WOOL.

£10 towards the prizes in these Classes are offered by the Devon Close Wool Sheep Society.

Judge—J. WEBBER, Snapper, Barnstaple, N. Devon.

CLASS.

140.—Shearling RAM	10	5	2
141.—Pen of 3 Shearling EWES	10	5	2
142.—Pen of 3 EWE LAMBS, dropped in 1932	10	5	2

SOUTHDOWN.

Judge—H. E. CRAWFORD, The Home Farm, Nonington, Dover.

143.—Shearling RAM	10	5	2
144.—Pen of 3 RAM LAMBS, dropped in 1932	10	5	2
145.—Pen of 3 SHEARLING EWES	10	5	2

HAMPSHIRE DOWN.

Judge—H. V. CREES, Earnley Grange, Chichester, Sussex

£25 towards the Prizes in these Classes and the Champion Prize are offered by the Hampshire Down Sheep Breeders' Association.

146.—Shearling RAM	10	5	2
147.—RAM LAMB, dropped in 1932	10	5	2
148.—Pen of 3 RAM LAMBS, dropped in 1932	10	5	2
149.—Pen of 3 Shearling EWES	10	5	2
150.—Pen of 3 EWE LAMBS, dropped in 1932	10	5	2

LOCAL PRIZE.

Best local exhibit in Class 146 £3 3s.

CHAMPION PRIZE.

Best Ram, Ram Lamb or Pen in the Hampshire Down Classes .. 5

OXFORD DOWN.

Judge—W. H. HITCH, Mordiford, London Road, Charlton Kings, Cheltenham.

151.—Shearling RAM	10	5	2
152.—Pen of 3 RAM LAMBS, dropped in 1932	10	5	2
153.—Pen of 3 Shearling EWES	10	5	2

£10 towards the prizes in Class 154 are offered by the Oxford Down Sheep Breeders' Association, and they will be withheld until the winning Animals are registered in the Flock Book.

154.—Pen of 3 EWE LAMBS, dropped in 1932	10	5	2
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DORSET HORN.

Judge—T. H. MERSON, Farrington, North Petherton, Bridgwater.

The Animals entered in Classes 155 and 157 must have been shorn bare in the year of the Show.

£15 towards the Prizes in these Classes are contributed by the Dorset Horn Sheep Breeders' Association.

155.—Shearling RAM	10	5	2
156.—Pen of 3 RAM LAMBS, dropped after October 1, 1931	10	5	2
157.—Pen of 3 Shearling EWES	10	5	2
158.—Pen of 3 EWE LAMBS, dropped after October 1, 1931	10	5	2

LOCAL PRIZE.

Best local exhibit in Class 156 £3 3s.

First Prize. £	Second Prize. £	Third Prize. £
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DORSET DOWN.**Judge—R. R. MEAD, Volis, Taunton.**

£15 towards the Prizes in these Classes and the Special Prize are contributed by the Dorset Down Sheep Breeders' Association.

CLASS.

159.—Shearling RAM	10	5	2
160.—Pen of 3 RAM LAMBS, dropped in 1932	10	5	2
161.—Pen of 3 Shearling EWES	10	5	2
162.—Pen of 3 EWE LAMBS, dropped in 1932	10	5	2

LOCAL PRIZE.

Best local exhibit in Class 159 £3 3s.

SPECIAL PRIZE.

For the best Ram or Pen in the Dorset Down Classes the property of an exhibitor who, prior to 1932, has not won a prize at either the Royal, Bath and West or Royal Counties Shows £5

EXMOOR HORN.**Judge—O. T. ROBINS, Lidcott Hall, High Bray, Barnstaple.**

£10 towards the Prizes in these Classes are contributed by the Exmoor Horn Sheep Breeders' Society; and animals must be shown in their wool.

163.—RAM, 2 Shear and upwards	10	5	2
164.—Shearling RAM	10	5	2
165.—Pen of 3 Shearling EWES	10	5	2

SUFFOLK.**Judge—Major NORMAN EVERETT, Rushmere, Ipswich.**

£10 towards the Prizes in these Classes are contributed by the Suffolk Sheep Society.

166.—Shearling RAM	10	5	2
167.—Pen of 3 RAM LAMBS, dropped in 1932	10	5	2
168.—Pen of 3 SHEARLING EWES	10	5	2

RYELAND.**Judge—A. E. BOOTH, Sydmoncton, Burghclere, Newbury.**

£10 of the Prizes in these Classes and the Champion Prize are contributed by the Ryeland Sheep Society.

169.—Shearling RAM	10	5	2
170.—Pen of 3 RAM LAMBS, dropped in 1932	10	5	2
171.—Pen of 3 Shearling EWES	10	5	2

CHAMPION PRIZE.

A Silver Medal for the best Ram or Pen in the Ryeland Classes.

DARTMOOR.**Judge—S. HEGGADON, Mistor View, Yelverton, S. Devon.**

£10 towards the Prizes in these Classes are contributed by the Dartmoor Sheep Breeders' and Flock Book Association, and animals must be shown in wool.

172.—Shearling RAM	10	5	2
173.—RAM LAMB, dropped in 1932	10	5	2
174.—Pen of 3 Shearling EWES	10	5	2

KERRY HILL.**Judge—J. C. JONES, Pennant, Llanfair, Mont.**

£8 towards the Prizes in these Classes are contributed by the Kerry Hill (Wales) Flock Book Society, and animals must be shown uncoloured. The names and Flock Book number of Rams must be given.

175.—RAM, 2 Shear and upwards	10	5	2
176.—Shearling RAM	10	5	2
177.—Pen of 3 Shearling EWES	10	5	2
178.—Pen of 3 EWE LAMBS, dropped in 1932	10	5	2

First Prize.	Second Prize.	Third Prize.
£ s.	£ s.	£ s.

PIGS.

Entry Fees: Members, 17/6; Non-Members, 35/- each entry.

(For Special Condition as to Classes for Pigs farrowed in 1932 see Regulation 11).

The Local Prizes in Classes 182, 187, 190, 197 and 208 are open only to residents within a 15 miles radius of the Town Hall, Yeovil.

BERKSHIRE.

Judge—C. J. TWIST, Burnham Grove Estate Office, Burnham, Bucks.

£5 towards the Prizes in these Classes and the Two Silver Cups are contributed by the National Pig Breeders' Association, and ages are calculated to May 25, 1932.

CLASS.

179.—BOAR, exceeding 18 months old	8	4	2
180.—BOAR, not exceeding 18 months old	7	4	2
181.—BREEDING SOW, exceeding 18 months old	8	4	2
182.—BREEDING SOW, not exceeding 18 months old	7	4	2

LOCAL PRIZES.

Best local exhibits in Class 182 £2, £1

SILVER CUPS.

To be won twice in succession or three times in all before becoming the property of the exhibitor.

Best Boar in the Berkshire Classes.

Best Sow in ditto.

A Silver Medal will be awarded to the Breeder of the prize-winning Animals.

Winners, 1931 (Boar)—S. C. ARMITAGE.

(Sow)—HILLSBOROUGH FRUIT FARMS.

LARGE BLACK.

Judge—G. H. HIRST, Mere Farm, Burton Fleming, Driffield.

£10 towards the Prizes in these Classes and the Silver Medals are contributed by the Large Black Pig Society.

183.—BOAR, farrowed before May 1, 1931	8	4	2
184.—BOAR, not exceeding 12 months old on May 1, 1932	7	4	2
185.—BOAR, farrowed in 1932	7	4	2
186.—BREEDING SOW, farrowed before May 1, 1931	8	4	2
187.—BREEDING SOW, not exceeding 12 months old on May 1, 1932	7	4	2
188.—BREEDING SOW, farrowed in 1932	7	4	2

LOCAL PRIZES.

Best local exhibits in Class 187 £2, £1

SILVER MEDALS.

Best Boar in the Large Black Classes.

Best Sow in ditto.

LARGE WHITE.

Judge—J. R. MAJOR, High Street, Ramsey, Hunts.

£8 towards the Prizes in these Classes and the Champion Prizes are offered by the National Pig Breeders' Association.

189.—BOAR, farrowed before July 1, 1931	8	4	2
190.—BOAR, farrowed on or after July 1, 1931	7	4	2
191.—BREEDING SOW, farrowed before 1931	8	4	2
192.—BREEDING SOW, farrowed on or after January 1 and before July 1, 1931	7	4	2
193.—BREEDING SOW, farrowed after July 1, 1931	7	4	2

LOCAL PRIZES.

Best local exhibits in Class 190 £2, £1

CHAMPION PRIZES.

SILVER GILT MEDALS for the best Boar and the best Sow in the Large White Classes.

First Prize. £	Second Prize. £	Third Prize. £
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MIDDLE WHITE.

Judge—E. W. BROOKS, Shurbridge Farm, near Charlwood, Surrey.

£8 towards the Prizes in these Classes and the Champion Prizes are offered by the National Pig Breeders' Association.

CLASS.

194.—BOAR, farrowed before July 1, 1931	8	4	2
195.—BOAR, farrowed on or after July 1, 1931	7	4	2
196.—BREEDING Sow, farrowed before 1931	8	4	2
197.—BREEDING Sow, farrowed on or after January 1, and before July 1, 1931	7	4	2
198.—BREEDING Sow, farrowed after July 1, 1931	7	4	2

LOCAL PRIZES.

Best local exhibits in Class 197 £2, £1

CHAMPION PRIZES.

SILVER GILT MEDALS for the best Boar and the best Sow in the Middle White Classes.

TAMWORTH.

Judge—C. J. TWIST, Burnham Grove Estate Office, Burnham, Bucks.

199.—BOAR, any age	7	4	2
200.—BREEDING Sow, farrowed in or before 1932	7	4	2

CHAMPION PRIZE.

Offered by the National Pig Breeders' Association.

A BRONZE MEDAL for the best animal in the Tamworth Classes.

GLOUCESTERSHIRE OLD SPOTS.

Judge—W. NIXON, Great Pinley, Claverdon, Warwickshire.

£10 towards the prizes in these classes are contributed by the Gloucestershire Old Spots Pig Society.

201.—BOAR, farrowed before July 1, 1931	8	4	2
202.—BOAR, farrowed on or after July 1, 1931	7	4	2
203.—BREEDING Sow, farrowed before 1932	8	4	2
204.—BREEDING Sow, farrowed in 1932	7	4	2

CHAMPION PRIZES.

Offered through the Gloucestershire Old Spots Pig Society.

The Sir George Watson Challenge Cup, value £21, for the best Animal in the Gloucestershire Old Spots Classes. (The Cup to be won three times by the same Exhibitor with different Animals before becoming his own property).

Winners, 1931.—SHERRIFF & SONS.

Offered by Messrs. Bennett and Howard.

The Sir John Anderson Cup for the best Sow in the Gloucestershire Old Spots Classes. (The Cup to be won three times by the same Exhibitor before becoming his own property).

Winners, 1931.—SHERRIFF & SONS.

First Prize. £	Second Prize £	Third Prize. £
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WESSEX SADDLEBACK.

Judge—F. W. GENTLE, 33, High Street, Brandon, Suffolk.

£5 towards the Prizes in these Classes and the Silver Medals are offered by the National Pig Breeders' Association, and all Pigs exhibited must be entered or eligible for entry in the Herd Book.

CLASS.

205.—BOAR, farrowed before July 1, 1931	..	..	..	8	4	2
206.—BOAR, farrowed on or after July 1, 1931	..	..	..	7	4	2
207.—BREEDING Sow, farrowed before 1931	..	..	..	8	4	2
208.—BREEDING Sow, farrowed in 1931..	..	..	..	7	4	2
209.—BREEDING Sow, farrowed in 1932..	..	..	..	7	4	2

LOCAL PRIZES.

Best local exhibits in Class 208 £2. £1

SILVER MEDALS.

For the best Boar and the best Sow exhibited in the Wessex Saddleback Classes.

NATIONAL LONG WHITE LOP-EARED.

Judge—W. J. WESTLAKE, Godwell, Ivybridge.

£5 towards the Prizes in these Classes and the Silver Medals are contributed by the National Long White Lop-Eared Pig Society and all Pigs exhibited must have been registered previous to entry and the Stud number given on entry form.

210.—BOAR, farrowed before July 1, 1931	..	..	..	8	4	2
211.—BOAR, farrowed on or after July 1, 1931	..	..	..	7	4	2
212.—BREEDING Sow, farrowed before 1931	..	..	..	8	4	2
213.—BREEDING Sow, farrowed in 1931..	..	..	..	7	4	2
214.—BREEDING Sow, farrowed in 1932	..	..	..	7	4	2

SILVER MEDALS.

For the best Exhibit in Classes 210 or 211.

For the best Exhibit in Classes 212 to 214.

CHAMPION PRIZE.

Offered by The Right Hon. The Lord Mildmay of Flete.

A SILVER CUP for the best Pig exhibited in Classes 210 to 214. (The Cup to be won twice by the same exhibitor before becoming his absolute property.)

Winner, 1931.—Captain D. M. WILLS.

BACON PIGS.

Judge—W. NIXON, Great Pinley, Claverdon, Warwickshire.

£10 towards the Prizes in Class 215 are contributed by Messrs. Oake, Woods & Co (Ld.), Gillingham, Dorset.

215.—Pair of PIGS of any breed or first cross of two pure breeds (the cross to be stated) approximately 7 score to 8 score 10lbs. dead weight each, shape and quality best calculated to meet the requirements of the trade, the age of the Pigs to be given and animals to be weighed before Judging .. 5 3 2

All Pigs in Class 215 will be purchased at the current market price by Messrs. Oake, Woods & Co. (Ld.), who will remove them from the Show, kill, and cure the carcasses. Additional prizes will then be awarded for the best Bacon after curing 5 3 2

First Prize £	Second Prize. £	Third Prize. £
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PRODUCE.**CIDER.**

(Open to Growers and Makers for Cider made from the juice of apples grown in Great Britain in 1931).

Entry Fees: Members, 3/6; Non-Members, 6/- each entry.

Judge—W. D. McCREATH, North Petherton, Bridgwater.

Cider can be entered in as many Classes as it is eligible for on payment of the entry fee for each Class.

CLASS.

216.—NOVICE CLASS. Cask of CIDER made by an Exhibitor who has not previously taken a first prize in any public exhibition	5	3	2
217.—Cask of CIDER made by an exhibitor whose main occupation is farming	5	3	2
218.—Cask of CIDER, of a specific gravity not exceeding 1.015 at 60 deg. Fahr.	5	3	2
219.—6 Quart Bottles of CIDER, ditto	5	3	2
220.—Cask of CIDER	5	3	2
221.—6 Quart Bottles of CIDER,	5	3	2
Offered by the Ministry of Agriculture and Fisheries.			
222.—6 Quart Bottles of CIDER, bearing the National Mark,	5	3	2

CHEESE.

(These Classes are not open to Professional Teachers.)

Entry Fees: Class 223, Members, 10/-; Non-Members, 20/-. Classes 224 to 227, Members, 7/6; Non-Members, 15/-. Class 228, 5/-.

The Local Prizes in Classes 223 and 225 are open only to residents within a 15 miles radius of the Town Hall, Yeovil.

Judge—A. TODD, British Dairy Institute, The University, Reading.

223.—Three CHEDDAR CHEESES (not less than 56lbs. each) made in 1931	15	10	5
224.—Three CHEDDAR CHEESES (not over 56lb. each), made in 1931 by an exhibitor who has not previously taken a prize at the Bath and West Show	5	3	2
225.—Three CHEDDAR CHEESES (not over 56lbs. each), made in 1931	10	7	4
226.—Four LOAF or other TRUCKLE CHEDDAR CHEESES, made in 1931	5	3	2
227.—Three CAMBRIDLY CHEESES, made in 1932	5	3	2

The Prizes in Class 228 are offered by Lord Strachle, and competition is confined to owner occupiers or tenant farmers in the Parliamentary Division of Yeovil who have never taken a prize at the London Dairy Show.

228.—Two Cheddar Cheeses (not less than 56lb. each) made in 1931	5	3	2
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LOCAL PRIZES.

Best local exhibits in Class 223	£3, £2
Ditto 225	£3, £2

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*Prizes for Cream Cheese, Butter and Cream and
Butter-making for 1932.*

	First Prize. £ s.	Second Prize. £ s.	Third Prize. £ s.	Fourth Prize. £ s.
CREAM CHEESE, BUTTER AND CREAM.				
Entry Fees : Classes 229 to 233, Members, 3/6 ; Non-Members, 6/-. Class 234, 2/6.				
Judge—Miss M. C. TAYLOR, Somerset Farm Institute, Cannington, Bridgwater.				
<i>(These Classes are not open to Professional Teachers.)</i>				
CLASS.				
229.—Three Cream CHEESES	3	0	2	0 1 0 0 10
230.—2lbs. of Fresh (or very slightly salted) BUTTER	4	0	3	0 2 0 1 0
231.—2lbs. of BUTTER, in the making of which no salt has been used, to be judged on the last day of the Show	4	0	3	0 2 0 1 0
232.—12lbs. of Keeping BUTTER, in a jar or crock, to be delivered to the Secretary 4 weeks before the Show	5	0	4	0 3 0 2 0
233.—Four half-pounds of SCALDED CREAM	3	0	2	0 1 0
234.—Collection of FARM PRODUCE from a Holding not exceeding 50 acres, including 1lb. Butter, 1lb. Clotted Cream, and 1 Dozen Eggs (the exhibits in this Class must be sent by post)	2	0	1	0 0 10 0 5

COMPETITIONS.

BUTTER-MAKING.

(No Winner of a first prize given by this Society for Butter-making during the last 3 years is eligible to compete in Classes 235 or 236.)

Entry Fees : Members, 3/6 ; Non-Members, 6/-.

Judges—

Classes 235 to 237—A. TODD, British Dairy Institute, The University, Reading.

Class 238—Miss E. PRITCHARD, County Buildings, Worcester.

(For Conditions and Regulations see Entry Form.)

235.—For Competitors who have not previously won a prize for Butter-making at the London Dairy, the Royal or Bath and West Shows. On the 1st day of the Show

	4	0	3	0	1	10	1	0
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cl *Prizes for Butter-making, Junket Making and Shoeing for 1932.*

	First Prize. £ s.	Second Prize. £ s.	Third Prize. £ s.	Fourth Prize. £ s.
CLASS.				
236.—For Students who have been through a course of instruction in Butter-making at any County Council School, and who have not previously won a first or second prize for Buttermaking at the London Dairy, Royal or Bath and West Shows. On the 2nd day of the Show	4	0	3	0
237.—For Men and Women. On the 3rd day of the Show	4	0	3	0
238.—For Winners of First and Second Prizes in the Butter-making Classes 235 to 237, or at any previous meeting of the Society. On the 4th day of the Show	1	10	1	0
1st Prize, Gold Medal.				
2nd .. Silver Medal.				
3rd .. Bronze Medal.				

JUNKET MAKING.

Entry Fee : 2/6.

Judge—Mrs. E. J. FARMER, Devonian, Cippenham, Slough.

239.—The Best Junket made from 1 quart of milk.
On the 3rd day of the Show 2 0 1 0 0 10

SHOEING.

Entry Fees : Members, 3/6 ; Non-Members, 6/- each entry.

Judge—C. S. DOUBLE, A.F.C.L., Holmleigh, Spencers Wood, Reading.

Special Tyro Prizes of £3, £2 and £1 will be offered in Classes 240 and 241 to men who have never previously won a prize of the value of £2 and over.

240.—For AGRICULTURAL HORSE SHOEING by Smiths.	£	s.	£	s.	£	s.	£	s.
On the 2nd day of the Show	4	0	3	0	2	0	1	0
Tyro prizes	3	0	2	0	1	0		
241.—For HUNTER SHOEING by Smiths. On the 3rd day of the Show	4	0	3	0	2	0	1	0
Tyro prizes	3	0	2	0	1	0		
242.—For SHOEMAKING or TURNING by Smiths. On the 4th day of the Show	4	0	3	0	2	0	1	0

SILVER MEDAL.

Offered by the National Horse Association of Great Britain.
For the Competitor gaining the most marks for the best Fitted Shoe in Classes 240 and 241. In case of close competition the marks allowed for the preparation of the foot to be taken into consideration.

CHAMPION PRIZES.

"The Capewell Challenge Cup," offered by the Capewell Horse Nall Co. (Ltd.) for the best Competitor in Class 240. The Cup to be won 3 years in succession or 4 times in all before becoming the absolute property of the winner.

Winner, 1931.—J. P. PRINT, A.F.C.L.

Gold Medal offered by Messrs. Godwin, Warren and Co., Ltd., Bristol, for the Best Competitor in Class 241.

An All-Bright "Godwin" Shoe Turning Hammer, by Messrs. Godwin, Warren and Co., for the Best Competitor in Class 242.

POULTRY.

(Under Poultry Club Rules).

The Poultry Show will open on Thursday, May 26.

Entry Fees: Class 1, Members, 3/-; Non-Members, 5/-
 Classes 2 to 80, Members, 2/-; Non-Members, 3/- each entry.

Entries close April 29th.

Judges—W. W. BROOMHEAD, Eaglehurst, Wallington Green, Surrey (Classes 1 to 24 and 43 to 48). C. WATSON, Oxhey, Watford (Classes 1, 25 to 42, 49, 50 and 73 to 78). W. POWELL-OWEN, 47a, High Street, Hampstead, London, N.W.3 (Classes 51 to 72). A. P. F. GRANT, Poultry Marketing Officer, Ministry of Agriculture and Fisheries, (Classes 79 and 80).

The Birds in Classes 1 to 40 and 51 to 72 must have been hatched previous to January 1st, 1932.

CLASS.	First Prize.			Second Prize.			Third Prize.		
	£	s.	d.	£	s.	d.	£	s.	d.
1.—Any Distinct Breed.—Cock and 2 Hens, the property of one Exhibitor	3	0		2	0		1	0	
2.—PLYMOUTH ROCK (Barred)—Cock	1	10		1	0		0	10	
3.—Ditto—Hen	1	10		1	0		0	10	
4.—Ditto (Any other variety)—Cock	1	10		1	0		0	10	
5.—Ditto—Hen	1	10		1	0		0	10	
6.—ORPINGTON—(Any variety)—Cock	1	10		1	0		0	10	
7.—Ditto—Hen	1	10		1	0		0	10	
8.—BARNVELDER—Cock	1	10		1	0		0	10	
9.—Ditto—Hen	1	10		1	0		0	10	
10.—RHODE ISLAND RED—Cock	1	10		1	0		0	10	
11.—Ditto—Hen	1	10		1	0		0	10	
12.—SUSSEX (Light or Speckled)—Cock	1	10		1	0		0	10	
13.—Ditto—Hen	1	10		1	0		0	10	
14.—SUSSEX (Any other variety)—Cock	1	10		1	0		0	10	
15.—Ditto—Hen	1	10		1	0		0	10	
16.—DORKING (Any variety)—Cock	1	10		1	0		0	10	
17.—Ditto—Hen	1	10		1	0		0	10	
18.—LANGSHAN—Cock or Hen	1	10		1	0		0	10	
19.—WYANDOTTE (Columbian)—Cock	1	10		1	0		0	10	
20.—Ditto—Hen	1	10		1	0		0	10	
21.—WYANDOTTE (Any other variety)—Cock	1	10		1	0		0	10	
22.—Ditto—Hen	1	10		1	0		0	10	
23.—WELSUMMER—Cock	1	10		1	0		0	10	
24.—Ditto—Hen	1	10		1	0		0	10	
25.—INDIAN GAME—Cock	1	10		1	0		0	10	
26.—Ditto—Hen	1	10		1	0		0	10	
27.—FRENCH (including Faverolles)—Cock	1	10		1	0		0	10	
28.—Ditto—Hen	1	10		1	0		0	10	
29.—MINORCA—Cock	1	10		1	0		0	10	
30.—Ditto—Hen	1	10		1	0		0	10	
31.—LEGHORN (Any colour)—Cock	1	10		1	0		0	10	
32.—Ditto—Hen	1	10		1	0		0	10	
33.—HAMBURG (Any variety)—Cock or Hen	1	10		1	0		0	10	
34.—CAMPINE—Cock or Hen	1	10		1	0		0	10	

CLASS.	First Prize.		Second Prize.		Third Prize.	
	£	s.	£	s.	£	s.
35.—OLD ENGLISH GAME (Any colour)—Cock	1	10	1	0	0	10
36.—Ditto—Hen	1	10	1	0	0	10
37.—ANCONA—Cock	1	10	1	0	0	10
38.—Ditto—Hen	1	10	1	0	0	10
39.—ANY OTHER DISTINCT BREED not previously men- tioned (excluding Bantams)—Cock	1	10	1	0	0	10
40.—Ditto—Hen	1	10	1	0	0	10

SELLING CLASSES.

41.—ANY DISTINCT BREED—Cock or Cockerel (Price not to exceed £1 ls.)	1	10	1	0	0	10
42.—ANY DISTINCT BREED—Hen or Pullet (Price not to exceed £1 ls.)	1	10	1	0	0	10

CHICKENS OF 1932.

43.—SUSSEX (Any variety)—Cockerel	1	10	1	0	0	10
44.—Ditto—Pullet	1	10	1	0	0	10
45.—WYANDOTTE (Any variety)—Cockerel	1	10	1	0	0	10
46.—Ditto—Pullet	1	10	1	0	0	10
47.—ANY OTHER VARIETY, Soft Feather—Cockerel	1	10	1	0	0	10
48.—Ditto—Pullet	1	10	1	0	0	10
49.—ANY OTHER VARIETY, Hard Feather—Cockerel	1	10	1	0	0	10
50.—Ditto—Pullet	1	10	1	0	0	10

UTILITY POULTRY.

51.—WYANDOTTE—Cock	1	10	1	0	0	10
52.—Ditto—Hen	1	10	1	0	0	10
53.—SUSSEX—Cock	1	10	1	0	0	10
54.—Ditto—Hen	1	10	1	0	0	10
55.—RHODE ISLAND RED—Cock	1	10	1	0	0	10
56.—Ditto—Hen	1	10	1	0	0	10
57.—LEGHORN—Cock	1	10	1	0	0	10
58.—Ditto—Hen	1	10	1	0	0	10
59.—ORPINGTON—Cock	1	10	1	0	0	10
60.—Ditto—Hen	1	10	1	0	0	10
61.—PLYMOUTH ROCK—Cock	1	10	1	0	0	10
62.—Ditto—Hen	1	10	1	0	0	10
63.—BARNVELDER—Cock	1	10	1	0	0	10
64.—Ditto—Hen	1	10	1	0	0	10
65.—WELSUMMER—Cock	1	10	1	0	0	10
66.—Ditto—Hen	1	10	1	0	0	10
67.—AUSTRALORP—Cock	1	10	1	0	0	10
68.—Ditto—Hen	1	10	1	0	0	10
69.—ANY OTHER VARIETY, Light Breed—Cock	1	10	1	0	0	10
70.—Ditto—Hen	1	10	1	0	0	10
71.—ANY OTHER VARIETY, Heavy Breed—Cock	1	10	1	0	0	10
72.—Ditto—Hen	1	10	1	0	0	10

SPECIAL PRIZES.

The Columbian Wyandotte Club (Hon. Sec., J. Dickinson, Grove House, Headcorn, Kent), offers the following Special Prizes :—

"The Goddard Visiting Cup" for best Columbian Wyandotte exhibited.

"The Twist Novice Points Cup" and the "West Hill Novice Points Cup." (Points credited by Club Secretary)."

The Welsummer Club (Hon. Sec., Mrs. K. Wood, The Mount, Crockenhill, Swanley Junction,) offer a Special for the best Welsummer exhibited.

First Prize.	Second Prize.	Third Prize.	Fourth Prize
£	s.	£	s.

CHAMPION PRIZES.

Best Cook or Cockerel exhibited in any of the Classes ... **3**

Best Hen or Pullet exhibited in any of the Classes **3**

DUCKS, GEESE AND TURKEYS.**CLASS.**

73.—DRAKE or DUCK (Aylesbury)	1	10	1	0	0	10
74.—" " (Rouen)	1	10	1	0	0	10
75.—" " (Indian Runner)	1	10	1	0	0	10
76.—" " (Any other variety)	1	10	1	0	0	10
77.—GANDER or GOOSE	1	10	1	0	0	10
78.—TURKEY—Cock or Hen	1	10	1	0	0	10

OFFERED BY THE YEOVIL AGRICULTURAL SOCIETY.

Special Prizes of £1 each for the best exhibits in the following
Classes the property of a resident within 15 miles of
the Town Hall, Yeovil.

51 or 52	53 or 54
55 " 56	57 " 58
59 " 60	61 " 62
63 " 64	65 " 66
67 " 68	73

DEAD POULTRY.

The First Prizes in Classes 79 and 80 are contributed by Mr. E. J. Soyer and the money prizes by the Yeovil Local Committee.

79.—Market Pack of 6 Cockerels, shaped for Market but not drawn. Net maximum weight of Pack 33lbs. (overweight will be disqualified). Birds to be shaped in "Surrey" style, i.e. pressed and tied loosely around the hocks only

Silver Cup 2 10 1 10 1 0

80.—Market Pack of 6 Fat Ducklings. Birds to be shaped for Market but not drawn

Silver Cup 2 10 1 10 1 0

Packs for the exhibits in Classes 79 and 80 will be supplied at 1/- each on application to the Secretary.

PIGEONS.

(Under N.P.A. Show Rules).

Entry Fees : Members, 1/6 ; Non-Members, 2/- each entry. Entries close April 29th.

Judge—W. L. LANGLEY, 16, Eastville, Claremont Road, Bath.

81.—POUTER, PIGMY or CROPPER—Cock or Hen	1	0	0	10	0	5
82.—DRAGOON—Cock or Hen	1	0	0	10	0	5

CLASS.	First Prize.		Second Prize.		Third Prize.	
	£	s.	£	s.	£	s.
83.—MAGPIE (Black)—Cock or Hen	1	0	0	10	0	5
84.—Ditto (Any other colour)—Cock or Hen	1	0	0	10	0	5
85.—TUMBLER (Long-faced)—Cock or Hen	1	0	0	10	0	5
86.—JACOBIN (Any colour)—Cock or Hen	1	0	0	10	0	5
87.—MODENA—Cock or Hen	1	0	0	10	0	5
88.—FANTAIL (Any colour)—Cock or Hen	1	0	0	10	0	5
89.—EXHIBITION HOMER—Cock or Hen	1	0	0	10	0	5
90.—WORKING HOMER (Adult)—Cock	1	0	0	10	0	5
91.—Ditto—Hen	1	0	0	10	0	5
92.—Ditto (1932)—Cock	1	0	0	10	0	5
23.—Ditto—Hen	1	0	0	10	0	5
94.—ANY OTHER VARIETY—Cock	1	0	0	10	0	5
95.—Ditto—Hen	1	0	0	10	0	5
96.—SELLING CLASS (Any variety, not to exceed £2)— Cock or Hen	1	0	0	10	0	5
97.—Ditto (Any variety, not to exceed £1)—Cock or Hen	1	0	0	10	0	5

CHAMPION PRIZE.

Best Pigeon exhibited in any of the Classes 2

RABBITS.

Entry Fees : Members, 1/6 ; Non-Members, 2/- each entry. Entries close April 29th

Judge—H. W. HARDING, 24, Stuart Street, Warwick Road, Bristol.

1.—ENGLISH (Any colour), 5 months old and over ..	1	0	0	10	0	5
2.—Ditto (Any colour), under 5 months old ..	1	0	0	10	0	5
3.—SILVER—Any age	1	0	0	10	0	5
4.—DUTCH (Any colour), 5 months old and over ..	1	0	0	10	0	5
5.—Ditto (Any colour), under 5 months	1	0	0	10	0	5
6.—CHINCHILLA—Buck, any age	1	0	0	10	0	5
7.—Ditto—Doe, any age	1	0	0	10	0	5
8.—ARGENTE (Any colour), any age	1	0	0	10	0	5
9.—BEVERAN (Any colour), any age	1	0	0	10	0	5
10.—FLEMISH GIANT, any age	1	0	0	10	0	5
11.—SABLE, any age	1	0	0	10	0	5
12.—HAVANA, any age	1	0	0	10	0	5
13.—TAN, any age	1	0	0	10	0	5
14.—LILAC, any age	1	0	0	10	0	5
15.—ANGORA, 5 months old and over	1	0	0	10	0	5
16.—Ditto, under 5 months	1	0	0	10	0	5
17.—ANY OTHER VARIETY, 5 months old and over ..	1	0	0	10	0	5
18.—Ditto, under 5 months	1	0	0	10	0	5
19.—SELLING CLASS (Any variety), price not to exceed £1 ..	1	0	0	10	0	5

CHAMPION PRIZE.

Best Rabbit exhibited in any of the Classes 2

CONDITIONS AND REGULATIONS FOR LIVE STOCK.

GENERAL.

ENTRIES.

1. The following are the Fees payable for Stock entries made on or before April 2. After that date and up to April 9 entries (except in the Any Agricultural Horses, Riding, Driving and Jumping Classes) will only be received on payment, in each case, of double the fee named below. *Exhibitors are requested to note that no exception can be made to this.* The entry fee is not returnable to an Exhibitor who enters an Animal in a Class for which it is ineligible, or for entries that are withdrawn after the date of entry has expired.

	MEMBERS.	NON-MEMBERS.
	(See Reg. 4 below)	
Horses (Classes 1 to 8, 10, 12 to 14, and 27 to 31) for each Entry, including Horse Box	25s.	50s.
Ditto (Classes 9 and 11) without box	5s.	10s.
Arabs and Ponies (Classes 15 to 26) including Box, for each Entry ..	10s.	10s.
Hacks, Riding Ponies, Driving and Jumping (Classes 32 to 54) without Box	5s.	10s.
Ditto, with Box (entries close April 2)	25s.	50s.
Cattle (Classes 55 to 130)	20s.	40s.
Nurse Cows	40s.	40s.
Goats (Classes 131 to 136)	7s. 6d.	10s.
Sheep and Pigs (Classes 137 to 215)	17s. 6d.	35s.

For particulars as to fees in other Classes, see Prize List and Entry forms.

2. Animals entered in the Any Agricultural, Riding, Driving and Jumping Classes, and not having a box in the Yard, must be in the Yard by the time stated on the day on which they compete and, with the consent of the Stewards may leave the Yard as soon as they have been judged. Entries in these Classes, if no Box is required, must reach the Secretary not later than 12 noon on the day previous to the competition for which the animal is entered. If a Box is required the entry must reach the Secretary on or before April 2, or at double fees as stated above, by April 9.

3. No Entry will be received unless the fee accompanies it, and (if the Exhibitor is a Member of the Society) the subscription for the year, unless previously paid, together with any arrears that may be due.

4. The privilege of entering at Members' fees is strictly limited to members of the Society or of the Yeovil Agricultural Society elected on or before January 31, 1932, and subscribing not less than £1 annually; or if elected after that date who has paid his subscription for 1932 and an additional £1 to the Society before the date of the closing of entries.

5. Where a Prize is offered for a *pair or pen* of Animals, single entry fees only are payable for each *pen or pair*, and only one entry form must be used.

6. Exhibitors desiring to send a nurse cow with their exhibits must give notice at the time of making their entry and pay the entry fee as above stated.

7. All Entries must be made on the printed forms to be obtained of the Secretary (F. H. Storr, 3, Pierrepont Street, Bath), and, in applying for Forms, Exhibitors are requested to state how many entries they wish to make of either Horses, Cattle, Sheep, Goats or Pigs, as a separate entry form must be filled up for each animal entered.

8. Every Exhibitor or Competitor is requested to examine carefully the list of Prizes and Conditions, as he will be held responsible for the correctness of his Certificate of Entry. An Exhibitor omitting to give information asked for on the entry form, with regard to the age, breeder, name, colour, sire, dam, etc., of an animal, will be liable to have his entry disqualified, and, if an Exhibitor desires that his animal shall compete for any special prize offered, he must notify this on the entry form where requested to do so.

9. If an Exhibitor or Competitor fails, when called upon by the Stewards or Council, to prove the correctness of his Certificate of Entry to their satisfaction, the Entry may be disqualified and any award made to it cancelled.

10. An Exhibitor who has made, in due time, an entry of Horses, Cattle, Sheep, Goats or Pigs, in a particular class, will be permitted, up to Thursday, April 21, to withdraw the entry of such animal, and to substitute for it the entry of another animal in the same class, on payment of the difference, if any, between the amount of the entry fee originally paid for the animal withdrawn, and the post entry fee. When, after entry, an animal dies, the Exhibitor will be permitted to substitute another entry for it, in the same class, without payment of any further fee, upon affording evidence of death and furnishing particulars of the substituted entry in time for the alteration to be made in the published catalogue.

11. In the Classes for Pigs farrowed in 1932, full particulars of the animals to be exhibited will be received up till Thursday, April 21, provided the entry has been made at the proper time.

12. An animal can be entered in as many Classes as it is eligible for on payment of an additional fee in each Class. No additional fee is, however, payable in the case of Special or Champion Prizes for exhibits already entered in any particular Class.

13. Every exhibit must be the *bona fide* property of the Exhibitor both at the time of entry and on the first day of the Exhibition. For the purposes of this Meeting, H.M. Officers' chargers will be considered as the property of the Officer in Classes 47 to 53.

SHOW YARD.

14. The Yard will be open for the reception of Shire, Suffolk and Percheron Horses, Hunters (see Regulation 2 for Hacks, Riding Ponies, Driving and Jumping Horses), Cattle, Sheep, Goats and Pigs, on Sunday, Monday and Tuesday, May 22, 23 and 24. Horses will also be received from 6 to 8 o'clock on the morning of the first day of Show, but all other Stock Entries (except Any Agricultural

Horses, Arabs and Ponies, which must be in the Yard before the time stated on Friday, May 27) must be in the Yard by 6 p.m. on May 24. A label denoting the number of each entry will be sent by the Secretary, and must be securely affixed to the head of the Animal. Exhibitors desiring to send their animals to the Show Yard more than 2 days before the opening of the Show are requested to notify the Secretary previously. The carriage of exhibits must in all cases be paid by the Exhibitor. No exhibit subject to charges will be received by Officers of the Society.

15. No animal can be removed from its place in the Yard without the special permission of the Stewards.

16. If any animal is brought into the Show Yard without having been entered for exhibition, the owner shall be liable to a fine of £2 and to the forfeiture of any prize awarded to him or her.

17. During the time the Show is open to the public no rug or cloth shall be hung up so as to conceal any animal in a horse-box or stall, except with the special permission of the Steward of the department. All sheets used for the purpose must be removed by 9 a.m. each morning, and must not be replaced until after the closing hour of the Show each day.

18. All Exhibits and all persons in charge of the same, will be subject to the Orders, Regulations, and Rules of the Society, and the Stewards shall have the power to remove from the Yard the Stock or property belonging to, and to cancel the admission ticket of, any Exhibitor who shall infringe any of the Regulations or Conditions of the Meeting, or who shall refuse to comply with any instructions given by the Stewards, without any responsibility attaching to the Stewards or the Society in consequence of such removal.

19. No animal shall be decorated with colours other than the Society's Prize Rosettes.

20. No person will be allowed to fix any placard, or to take down any placard in the Yard, without the permission of the Stewards.

21. All persons in charge of Exhibits will be subject to the orders of the Stewards, and will be required to parade or exhibit the animals in their charge at such times as may be directed by the Stewards. Servants must be in attendance each day during the Show at least a quarter of an hour before the time appointed for exhibiting the animals under their charge in the Show rings. Servants in charge of animals must see that the animals' boxes or stalls are kept clean. Stockmen are required to clear their sheds of manure by 6 a.m. each day. No oil or cooking stove of any description must be lighted in the Horse Boxes, and any one found offending in this respect will be dealt with in accordance with Regulation 32. Owners of animals exhibited will be held responsible for the behaviour of their Servants, and for the consequences of any misconduct of such Servants.

22. Servants in charge of Stock at night must, if they leave the Yard, return before 10 p.m., or they will not be admitted.

23. On the day previous to the opening, and on each day of the Show, hay or green food and straw will be supplied by the Society free of expense to exhibitors at the Forage Stores in the Show Yard. Servants must apply at the Forage Stores for their Forage Tickets after they have brought their animals into the Yard. Corn, meal, and cake can be obtained in the Show Yard at fixed prices.

NOTE.—For the convenience of Exhibitors wishing to sell their animals, a Register will be kept at the Secretary's Office, in which they may enter the prices.

TICKETS.

24. Each Exhibitor of Live Stock whose entry fees amount to £1 and upwards will have a free Ticket of admission to the Show Yard sent to him, except in the case of a Member, who will receive his Member's Badge in lieu of an Exhibitor's Ticket. Tickets for the use of Servants in charge of Live Stock remaining in the Yard will also be sent, and the Exhibitor will be held responsible for the proper use of such Tickets. In the case of animals not having a box in the Yard, a Servant's Ticket will not be required, as the official label will admit the Driver or Rider, Horse and Vehicle into the Yard. In case of transfer or other improper use of a Ticket the Exhibitor will be required to pay a fine of £1 for each case. Exhibitors will be held responsible for the attendance at each Parade of as many Servants as Tickets have been issued for.

RESPONSIBILITY.

25. Neither the Society nor any of its Officers or Servants shall be in any way responsible or accountable for anything that may happen (from any cause or circumstances whatever) to Exhibitors or their Servants, or to any animal or article exhibited, or property brought into the Show Yard, or otherwise for anything else in connection with, or arising out of, or attributable to, the Society's Show, or these or any other Conditions or Regulations prescribed by the Society in relation thereto.

26. Each Exhibitor shall be solely responsible for any consequential or other loss, injury, or damage done to, or occasioned by, or arising from, any animal or article exhibited by him, and shall indemnify the Society against all legal or other proceedings in regard thereto.

27. The Society, its Officers and Servants, will not be liable for any errors or mistakes that may happen in placing or penning the Stock or Articles to be exhibited, but the Servants in charge of the same must see that they are placed or penned according to their entries.

DISQUALIFICATION.

28. The use of resin, soap, sawdust above the knee, or other substances designed to give an artificial appearance; cording; or other improper means adopted in showing an animal in the Agricultural Horse Classes will be regarded as a disqualification.

29. An animal in the Breeding Classes having any unsoundness likely to be transmitted to its progeny shall be disqualified thereby from receiving any Prize offered by or through the Society.

30. If it shall be proved to the satisfaction of the Stewards or Council that an Exhibitor or Competitor has knowingly signed an incorrect Certificate, or knowingly given an incorrect Pedigree of any animal, or has attempted to enter an animal or other exhibit or to obtain a Prize by any other unfair means at this or any other Agricultural Society's Meetings, or is under exclusion from any Breed Society for fraudulent practices, the Council shall have the power to cancel all awards made to such Exhibitor or Competitor, to disqualify him or her from exhibiting or competing at future Meetings of the Society, and to inform other Agricultural Associations of their action in this respect.

PENALTIES.

31. Every Exhibitor will be required to undertake to forfeit and pay to the Society the sum of £20, as and for liquidated damages, if any animal which he exhibits be, to his knowledge, suffering from any contagious or infectious disease, and the Stewards are empowered to prevent the entry of any diseased animal into the Yard, or to have it removed therefrom.

32. Any infringement of any of these or any other prescribed Regulations or Conditions will subject the Exhibitor to a fine of £1 by the Stewards, and to the forfeiture, by order of the Council, of any Prize to which he may be entitled (in addition to all other consequences attaching to such infringement). The Council reserves to itself the right to inform other Agricultural Associations of any decision it may come to with respect to an Exhibitor.

AWARDS.

33. No Second Prize will be awarded unless there are 3 Entries and no Third Prize unless there are 5 Entries in the Class, except on the special recommendation of the Judge.

34. In the event of the number of different Exhibitors throughout the section of any Breed being less than three, the classification for that Breed shall be automatically cancelled for the year, and the Entry Fees returned.

35. Only the signed awards of the Judges are accepted by the Society as evidence that a prize has been awarded, and the production of the prize card or the rosette by an Exhibitor will not entitle him to the prize. The Society reserves to itself the right to withhold any prize, if, in the opinion of the Stewards, the conditions and regulations have not been properly complied with, or if, in the opinion of the Judge, there is insufficient merit.

36. The certificate of the Veterinary Inspector, whether as to age or soundness shall be required only in cases where the Judges are in doubt, or where the Stewards may consider it necessary. (See also Regulations 46 and 66 with reference to Horses and Pigs). The decision of the Inspector in such cases shall be final and conclusive; and in case it shall be against the animal to which a Prize has been awarded, such animal shall be disqualified from receiving such Prize.

PROTESTS.

37. Any Exhibitor wishing to lodge a protest having reference to Live Stock exhibited at this Meeting must make the same in writing on a form to be obtained from the Secretary, and deposit with him the sum of £3. If, on investigation, the protest is not sustained to the satisfaction of the Stewards, the sum thus deposited, shall, at the discretion of the Council, be forfeited to the funds of the Society. All protests (except in the Riding, Driving or Jumping Classes) must be delivered at the Secretary's Office in the Show Yard on the day on which the award is made, and no protest will be SUBSEQUENTLY received, unless a reason, satisfactory to the Stewards, be assigned for the delay. Any protest against an award in the Riding, Driving or Jumping Classes must be made to the Steward in the ring immediately after the judging of the class to which it refers, and a deposit of £3 must, at the same time, be handed to the Steward. The Stewards will consider such protests at 11 o'clock on the following day at the Secretary's Office, at which time and place any person making a protest must attend or be represented by his authorised agent. The decision of the Stewards shall be final.

APPLYING TO CERTAIN CLASSES ONLY.**HORSES.**

38. Horses can be removed from the Yard at night on deposit by the Exhibitor of £3 at the Finance Office, which sum will be forfeited if the Horse does not return at 8 a.m. each day during the Exhibition. This Regulation does not apply to Animals not having a box in the Yard entered in the Riding, Driving and Jumping Classes only.

39. Exhibitors must provide saddles for Horses in Classes 27 to 38 and 47 to 54, as they are to be ridden; and vehicles and harness for those in Classes 39 to 46 which are to be driven.

40. No Horse, unless a Foal, will be admitted into the Ring without a proper bit.

41. Except in the Moorland and Mountain Pony Classes the Prizes for Stallions foaled before 1930 will be withheld until a certificate from the owner is delivered to the Secretary that the Horse has served at least 10 Mares during the current season.

42. All Foals must be the offspring of the Mares with which they are exhibited, and the name of the sire of the Foal must be stated on the certificate of entry.

43. Mares entered as in Foal shall, except as otherwise stated hereafter, be certified to have produced a living Foal before August 1 of the year of the Show. If the required Certificate, which must be on a form obtainable from the Secretary, is not received by September 30, 1932, the prize awarded will be forfeited.

44. Horses may, at the discretion of the Stewards, be measured, and the measurement shall be taken in the shoes worn by the entry at the time of judging, and these shoes shall not be removed to allow of the entry being shown in another class. Animals entered in the Children's Riding and Jumping Classes must be officially measured before entering the ring.

45. In the Driving Classes for Hackneys exceeding 14 hands (except yearling colts and fillies), no shoe (nails included) may exceed 2lbs. in weight, and for Ponies not exceeding 14 hands, yearling colts and yearling fillies, no shoe (nails included) may exceed 1½lbs. in weight.

46. All Animals shown in hand shall be examined by the Society's Veterinary Inspector, and unless pronounced free from indications of hereditary disease shall be ineligible to receive the prize. Brood Mares, Foals and Yearlings will not be examined for their wind. The owner of an Animal rejected under this Regulation may, upon his application in writing to the Secretary, be furnished with a copy of the Veterinary Certificate. This Regulation shall not, however, apply to any animal holding a Ministry of Agriculture Certificate for the current year, which must accompany the animal and be available for inspection by officers of the Society.

47. The Jumping Competitions will be carried out in accordance with, and judged under the rules of, the Show Jumping Association. The jumps may consist of a single hurdle, gate, double hurdle, open ditch, bank, wall, and water, at the discretion of the Judge and Stewards. Each horse competing shall have its catalogue number affixed in such a way as to be easily seen by the general public.

CATTLE.

48. All cattle must be properly secured to the satisfaction of the Officers of the Society on being brought to the gate of the Yard, or they will not be admitted. All Bulls must have a ring or clamp attached to the nose and, in the aged Classes, must be provided with a strong chain, and be led with a proper stick.

49. All cattle will be required to be paraded in the ring at least once a day at the discretion of the Stewards.

50. No Bull calved before January 1, 1930, or in the Aberdeen-Angus Classes before December 1, 1929, will be eligible to receive a Prize until certified to have served not less than six different cows (or Heifers) previous to June 1st, 1932, and to be the sire of live calves dropped in the year 1932, or in the Aberdeen-Angus Classes after December 1st, 1931. No Cow or Heifer, entered as in-milk, will be eligible to receive a Prize unless certified to have had a living Calf within the fifteen months preceding the date of the Show, or that the Calf, if dead, was born at the proper time.

51. Every Cow or Heifer in-milk shall be milked dry in the Show Yard before 7.30 p.m. on the evening preceding the day of judging, in the presence of an officer of the Society appointed for the purpose.

52. Any animal in the Cattle Classes found to be artificially coloured will be disqualified.

53. The milk yielded by Cows in the Show Yard must not be sold at the stalls, but will be purchased by the Society for the purpose of the Dairy at a price to be agreed upon, and will be paid for on delivery at the Milk Receiving Office in the Dairy.

54. The following conditions apply only to the prizes offered for Pedigree Dairy Shorthorn Milking Cows and Heifers :—The Cows and Heifers entered will be clean milked out at 6 o'clock on the evening preceding the opening of the Show to the satisfaction of the Stewards, and will be again milked in the ring on the first morning of the Show in the presence of the Judge, who shall see the Milk weighed. No animal being 4 years and 3 calendar months of age and upwards on the first day of the Show shall be eligible to compete unless it possesses the following minimum milk yields given in 315 consecutive days of one lactation period, such milk yields must have been entered or provisionally accepted for entry in the Year Book of the Dairy Shorthorn Association and must be supplied with the entry. The exact date of birth and the last date of calving must be given in each case, and when an animal calves between the time of entry and the date of the Show, notification must be at once sent to the Secretary:—

Age on first day of the Show.	Minimum Milk Yields if milked twice daily	Minimum Milk Yields if milked three times daily for more than 30 days after calving.	Minimum Milk Yields if milked four times daily for more than 30 days after calving.
	lbs.	lbs.	lbs.
6 years and 3 calendar months and upwards ..	8,000	9,200	10,000
5 years and 3 calendar months and under 6 years and 3 calendar months	6,500	7,475	8,125
4 years and 3 calendar months and under 5 years 3 calendar months	5,500	6,325	6,875

Animals under 4 years and 3 months old on the first day of the Show, unless they have been registered or accepted by the D.S.A. as being eligible for registration as qualified bull-breeders in respect of a yield of 5,500 lbs. in accordance with the rules of the Association, must be milked in the presence of the Judge or Judges who shall see such milk weighed and all such animals must, in order to entitle them to be included in the Award List, yield up to the following standard :—

	Having calved 2 calendar months or less from the 1st day of the Show.	Having calved over 2 but not less than 3 calendar months from the 1st day of the Show.	Having calved more than 3 calendar months before the 1st day of the Show.
	lbs. of milk	lbs. of milk.	lbs. of milk.
Heifers, 3 years and 3 calendar months and under 4 years and 3 calendar months of age at date of calving, not less than..	23	20	17
Heifers, under 3 years and 3 calendar months of age at date of calving, not less than..	19	16	13

No animal shall have its teats sealed during the Show, nor shall the udder be in any way faked, and any infringement of this Rule will entail disqualification.

No animal having once taken one of these prizes is eligible to compete again in the same year, except at the Royal Agricultural Society's Show.

55. The following conditions apply only to the special prize offered for Pedigree Dairy Shorthorn Bulls calved in 1931. The Bull must comply with the requirements necessary for inclusion in the Dairy Shorthorn Association's list of qualified Bulls and must possess the following further qualifications :—That the following cows in the pedigree of such bull are registered, or are provisionally accepted for registration as qualified cows in the Association's Register, viz. :

1. The sire's dam and her dam.
2. The dam and her dam.
3. The dam of the dam's sire.

The Bull to have been entered in the D.S.A. Register, and no Bull having taken one of these prizes to be eligible to compete.

56. In the Dexter Classes clipping (except in the case of a few hairs on the top of the tail) will disqualify an animal.

57. The following conditions apply to animals entered in the Milk and Butter Test Classes :—The date of last calving must be given on the entry form and, when an animal calves between the date of entry and that of the Show, notice of such calving must be sent to the Secretary or the animal may be disqualified. Animals will be milked 2 or 3 times as desired. Any cow not reaching a standard of 3% Butter Fat on the average of the combined milkings will not be eligible for a prize. Points will be allowed as follows :—

Milk Test Classes :—1 point for each 1lb. of Milk, and points for butter fat calculated as follows : Yield of Milk in lbs. \times Percentage Butter Fat \div 3 — yield of Milk in lbs. 1 point for every completed 10 days since calving, calculated to opening day of Show, deducting the first 40 days, maximum allowance 12 points.

Butter Test Classes :—1 point for each ounce of Butter. Lactation points as in Milk Test.

58. Except in the Milk and Butter Test Classes, every animal entered for competition must be entered, or certified as eligible to be entered, in the Herd Book of its Breed, where such Herd Book exists and has been in existence for not less than seven years, and all cattle must be tattooed in accordance with the rules of their respective Breed Societies, where such rules exist. Where an animal is entered by the Exhibitor as eligible for entry in the Herd Book of its breed, proof of such eligibility must be furnished to the Secretary at the time of making the entry.

SHEEP.

59. Each pen of Ewes must be of the same Flock.

60. Every animal entered for competition must be entered or certified as eligible to be entered, in the Flock Book of its Breed, where such Flock Book exists and has been in existence for not less than seven years, and all Sheep must be tattooed in accordance with the rules of their respective Breed Societies where such rules exist. Where an animal is entered by the Exhibitor as eligible for entry in the Flock Book of its breed, proof of such eligibility must be furnished to the Secretary at the time of making the entry.

PIGS.

61. All Sows farrowed before May 1, 1931 shall be certified to have had a litter of live Pigs within six months preceding the first day of Exhibition, or to be in-Pig at the time of entering, so as to produce a litter of Pigs, farrowed at their proper time, before the 1st September following. In the case of in-Pig Sows the Prize will be withheld until the Exhibitor shall have furnished the Secretary with a certificate of farrowing as above. If the required Certificate, which must be on a form obtainable from the Secretary, is not received on or before the 15th September following, the prize awarded will be forfeited.

62. All Pigs exhibited with a Sow shall be her own produce, of the same litter, and not exceeding two months old at the time of the Show.

63. No Sow above 18 months old that has not produced a litter of live Pigs shall be eligible to compete in any of the Classes.

64. In the Berkshire, Large and Middle White, Tamworth and Wessex Saddle-back Classes, all Boars of 2 years of age and over must be certified as having sired at least 3 live litters within the twelve months preceding the date on which entries close. Such litters to be registered or eligible for registration in the N.P.B.A. Herd Book.

65. Any animal in the Pig Classes found to be artificially coloured, whitened or powdered, will be disqualified.

66. In the Berkshire, Large and Middle White, Tamworth and Wessex Saddle-back Classes, animals will be subject to the following Dentition Test, and, in the other Pig Classes, should any question arise as to the age of any exhibit, the Stewards shall, at the request of the Judge, have the state of their Dentition examined by a competent authority and if the state of the Dentition shall indicate that the age of any of the Pigs does not agree with the Dentition Test, the Stewards shall report the same to the Council, who shall have power to disqualify such Pig or Pigs. The following is the state of Dentition in Pigs which will be considered as indicating that they exceed the ages specified below—Six Months: Pigs having their

corner permanent incisors cut will be considered as exceeding this age. Twelve Months : Pigs having their central permanent incisors up, and any of the three first permanent molars cut, will be considered as exceeding this age. Eighteen Months : Pigs having their lateral permanent incisors fully up will be considered as exceeding this age.

67. Except in the Bacon Pig Class, every animal entered for competition must be entered or certified as eligible to be entered in the Herd Book of its breed, where such Herd Book exists and has been in existence for not less than seven years, and must conform to the rules of their respective Societies. In the Large Black Classes the official ear-marker bearing the Herd Book number must be in the ear of all pigs entered, and the Judges are instructed not to award prizes unless this regulation is observed, or a reasonable explanation given for the absence of the marker.

GOATS, PRODUCE, POULTRY, PIGEONS, RABBITS, AND COMPETITIONS.

For Conditions and Regulations see entry form.

ADJUDICATION OF PRIZES.

68. The Judges are instructed as follows, and entries are received subject to this :

a. Not to award any Prize or Commendation unless the entry possesses sufficient merit.

b. Not to award a Prize to any Horse or Mare in the Breeding Classes, unless it is free from unsoundness likely to be transmitted to its progeny ; or, if a Gelding, unless free from unsoundness ; in either case, an accident having temporary consequences only excepted, and in awarding the Hunters' Improvement Society's Medals to give preference to animals showing weight-carrying properties.

c. In awarding Prizes to Cattle, Sheep, and Pigs, to decide according to the relative merits of the animals for Breeding purposes, and not to take into consideration their present value to the butcher.

d. To make the milking capacity and form of udder one of the chief points in awarding Prizes to Cows and Heifers in-milk.

e. To draw the attention of the Stewards to any exhibit that has been improperly prepared for exhibition or is wrongly entered.

f. To give in a "RESERVE NUMBER" in each Class, indicating the animal or exhibit which in their opinion possesses sufficient merit for the Prize, if the animal or exhibit to which the Prize is awarded should become disqualified. Should the "Reserved Number" succeed to a prize, and be itself disqualified, the prize will be forfeited.

g. Immediately after the Judging to deliver to the Stewards their signed awards stating the numbers to which the Prizes are adjudged, and noting all disqualifications.

69. Should any question arise upon which the Judges may desire a further opinion, the Stewards shall provide them with a Referee.

PAYMENT OF PRIZES.

70. Cheques for the Prizes awarded (except where further qualification of an animal is required) will be drawn at the meeting of the Finance Committee held in July, 1932, and will then be forwarded by post to the Exhibitors to whom they have been awarded.

INTERPRETATION OF CONDITIONS.

71. The Society reserves to itself by its Council the sole and absolute right to interpret these or any other prescribed conditions and regulations, or Prize Sheets, and to arbitrarily settle and determine all matters, questions or differences in regard thereto, or otherwise arising out of or connected with or incident to the Show. Also to refuse and to cancel any entries, disqualify Exhibitors, prohibit exhibition of entries, vary or cancel awards of prizes or reserved numbers, and relax conditions, as the Society may deem expedient.

IMPLEMENTS, MACHINERY, ETC.

Entry Forms and Regulations referring to above, the entries for which close on March 16th, can be obtained of the Secretary, 3, Pierpont Street, Bath.

By Order of the Council, F. H. STORR, *Secretary*.

Telegraph and Telephone :—3010 Bath.

POULTRY.

CONDITIONS AND REGULATIONS.

CHARGES, ETC.

1. Exhibitors may make an unlimited number of Entries on payment of fees as follows :—

	MEMBERS.		NON-MEMBERS.	
	s.	d.	s.	d.
For each entry (Class 1)	3	0	5	0
„ (Classes 2 to 80)	2	0	3	0
„ (Classes 81 to 97)	1	6	2	0

The above fees include coops, food, and attendance.

N.B.—The above fees *must* be sent with the entries, or no notice will be taken of the latter.

2. The privilege of entering at Members' fees is strictly limited to Members of the Bath and West Society, or of the Yeovil Agricultural Society, elected on or before January 31st, 1932, and subscribing not less than £1 annually.

3. All entries must be made on the printed forms to be obtained of the Secretary (F. H. STORR, 3, Pierrepont Street, Bath), and such forms must be correctly filled up and returned to the Secretary, together with all fees due, on or before April 29th. Exhibitors are requested to carefully examine the list of Prizes and Conditions, as the Society cannot be responsible for any errors made by Exhibitors in the entry forms, and birds entered in a wrong Class will be necessarily excluded from competition. No alterations can be made in entry forms after they have been received by the Secretary.

4. The Council reserve the right to refuse the entries of any person.

5. Exhibitors must state the price and breed of their birds on their entry forms.

SHOW YARD.

6. The Judging will take place on *Thursday, May 26th*, and all exhibits must be in the Show Yard by 6 p.m. on *Wednesday, May 25th*, and remain there till 6 p.m. on *Saturday, May 28th*. (See Regulation 11 as to Dead Poultry). Any Exhibitors who send for their birds must do so between 7 and 8 p.m. on that day.

7. All carriage must be prepaid to Yeovil Railway Station, otherwise the birds will not be received at the Exhibition; but they will be conveyed free of expense from the Station to the Show Yard and back.

8. No Exhibitor or Servant will be allowed into the tent until the birds have been judged.

9. The Poultry Tent will not be open to the public until 2 o'clock on *Thursday, May 26th*.

10. A Non-Transferable Admission Ticket for the Exhibition will be sent to each Exhibitor whose entry fees amount to £1 and upwards.

DEAD POULTRY.

11. The exhibits in Classes 79 and 80 must be sent in Packs, which will be supplied on application to the Secretary, at a charge of 1/- per Pack. If unsold they will be returned to Exhibitors after the close of the Show on Thursday, May 26th. Exhibitors are recommended to put a reasonable price upon their exhibits in these Classes so as to promote the sale of them.

SALES.

12. All birds may be claimed, at the price put upon them, any time after 4 o'clock on Thursday, May 26th and a sale *must take place* if the price stated be paid to the Clerk in the Poultry Office at the time of claiming. *No alteration can be made in the prices stated on the entry forms and in the Catalogue until after Friday, May 27th, when the price may be reduced on payment to the Steward of one shilling per pen on each alteration. Birds must be sold in pens, and the price stated must include the basket. Birds entered in selling classes must be sent in separate hampers. A charge of 10 per cent. will be made for all birds sold. The persons who have the management of the sales cannot take charge of birds which are disposed of privately.*

AWARDS.

13. No Second Prize will be given in any of the Classes unless there are three entries, and no Third Prize unless there are six entries.

DISQUALIFICATION.

14. The Judges are empowered to withhold a prize or prizes where the birds are not considered of sufficient merit, or in the chicken classes where they consider them over age, and are instructed to disqualify any that have been clipped, drawn, trimmed, marked, or dyed. In the Game Classes birds can be shown either dubbed or undubbed.

15. An Exhibitor detected in a false statement as to the age, etc., of any bird, or in any other practice calculated to deceive or mislead the Judges or Stewards, shall forfeit all or any prizes awarded to him or her at the Show, and will be disqualified from competing at any future Show of the Society, and the Council shall have power to inform other Societies of their action in this respect.

16. No person who shall have been shown to the satisfaction of the Council to have been excluded from exhibiting for Prizes at the exhibition of any other Society in consequence of having attempted to obtain a Prize by giving a false Certificate or by other unfair means, and no person who is under exclusion from any Breed Society for fraudulent practices, shall be allowed to exhibit at this or any other Meeting of the Society.

17. Unhealthy birds will not be exhibited, but will be immediately returned to their owners, and the fees will be forfeited.

PROTESTS.

18. In order to check frivolous and vexatious protests, no protest will be entertained unless accompanied by a deposit of £1 in each case: and in case the protest is not substantiated the deposit may be forfeited to the funds of the Society. All protests must be made before 12 o'clock (noon) on Friday, May 27th.

FORFEITS.

19. Persons entering birds and failing to send the same to the Exhibition will forfeit the entrance fee for each pen so left vacant.

GENERAL.

20. All birds shown must be *bona fide* the property of the Exhibitor.
21. For each pen entered the Exhibitor will receive a label, on which he must legibly write his name and address for the return journey.
22. All eggs laid at the Exhibition will be destroyed.
23. The Stewards pledge themselves to take every care of the birds exhibited, but neither they nor the Society will, in any case, be responsible for any accident, loss, or damage, from whatever cause arising, the exhibits being entered at the sole risk of the Exhibitors, and Exhibitors will be required to hold the Society harmless in the event of loss.
24. In case of death of any bird during the Exhibition, it will be sent back for the inspection of the Exhibitor.
25. The Poultry Department is subject to the Rules and Regulations of the Society and its officers.

The use of properly-constructed Poultry Baskets will facilitate the safe and speedy conveyance of the birds to and from the Exhibition, and all Birds entered in Selling Classes must be sent in separate hampers.

The Society cannot, under any circumstances, undertake to send telegrams to Exhibitors as to Judges' awards.

Applications for Catalogues should be made only to the Publishers, "THE CHRONICLE AND HERALD" PRESS, BATH.

By Order of the Council,

3, Pierrepont Street, Bath.

F. H. STORR, *Secretary.*

TELEGRAPH AND TELEPHONE, 3010, BATH.

FINANCIAL STATEMENTS

FOR

1931

WITH ITEMS OF 1930 FOR COMPARISON.

	PAGES
SUMMARY OF CASH ACCOUNT	clxx, clxxi
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FINANCIAL RESULT OF THE SHOW	clxxxiii

The Bath and West and

SUMMARY OF THE CASH ACCOUNT

WITH COMPARATIVE

Dr.

Page of accompany- ing Cash Account.	RECEIPTS.	1931. BRISTOL.		1930. TORQUAY.	
		£ s. d.	£ s. d.	£ s. d.	
	GENERAL.				
clxxii	Dividends and Interest	840 9 0		758 5 0	
"	General			1 2	
"	Subscriptions	1,099 2 0		1,030 1 0	
"	Life Members	30 0 0			
"	Journal	52 10 8		41 5 6	
			2,022 1 8	1,829 13 5	
	SHOW.				
"	Implements	3,535 2 9		3,095 2 6	
		£ s. d.			
clxxiv	Horses	1,326 11 3		1,005 16 0	
"	Cattle, Sheep, Goats & Pigs	1,906 8 10		1,565 5 6	
"	Catalogues, Fodder, etc.	112 19 11		119 2 0	
		3,346 0 0		2,690 3 6	
"	Poultry, Pigeons and Rabbits	95 16 3		121 0 6	
clxxvi	Shoeling	12 12 0		47 6 0	
"	Local Competitions	17 16 6		44 3 0	
"	Education and Handicrafts	140 15 2		69 6 0	
"	Forestry	4 4 6		4 1 0	
clxxviii	Small Holdings	55 0 0			
"	Cheese and Butter	100 0 6		96 13 6	
"	Working Dairy	141 12 0		130 13 7	
"	Cider	42 8 6		51 10 6	
"	Admissions	5,620 8 9		6,600 4 0	
clxxx	Unapportionable.—				
	Contract Premiums and				
	Cloak Room	1,487 10 9		1,021 9 9	
	Sales, Fittings, etc.	464 10 8		614 9 5	
		1,932 1 5		1,635 19 2	
"	Subscriptions from Towns			1,200 0 0	
			15,052 18 4	15,786 3 3	
			17,075 0 0	17,615 16 8	
"	Balance in Bank, Jan. 1st		102 1 0		
			17,177 1 0	17,615 16 8	

Southern Counties Society.**FOR THE YEAR ENDED DEC. 31st, 1931.****STATEMENT FOR 1930.**

Page of accompany- ing Cash Account.	PAYMENTS.	1931. BRISTOL.		1930. TORQUAY.	
		£ s. d.	£ s. d.	£ s. d.	
clxxiii	GENERAL.				
	Salaries	1,316 3 5		1,358 3 7	
	Printing, Postage, Stationery, etc. ..	350 14 2		561 2 5	
	Journal	378 0 2		340 11 7	
			2,044 17 9	2,259 17 7	
	SHOW.				
	Implements	1,028 7 6		1,104 4 0	
clxxv	Horses	2,090 3 6		1,867 6 6	
	Cattle, Sheep, Goats & Pigs	3,699 3 11		3,806 7 0	
	Fodder, etc.	755 3 3		969 10 6	
		6,553 10 8		6,643 4 0	
	Poultry, Pigeons and Rabbits	503 13 4		563 18 5	
clxxvii	Shoeing	159 17 0		195 17 10	
	Local Competitions	39 7 1		58 19 2	
	Bees			10 10 0	
	Education and Handicrafts	277 5 7		307 4 2	
	Forestry	168 12 10		183 18 4	
	Music	199 6 10			
clxxix	Small Holdings	52 15 10			
	Cheese and Butter	216 2 9		236 10 10	
	Working Dairy	452 5 5		573 13 3	
	Horticulture	357 19 11		320 2 6	
	Cider	176 16 9		197 11 1	
	Public Announcements	619 4 2		523 11 0	
clxxx	Unapportionable.				
	Erection of Offices, etc.	1,759 1 11		2,087 3 11	
	Carriage of Plant	104 8 3		171 17 6	
	Stand Fittings	257 10 0		459 1 2	
	Police	155 16 3		336 0 8	
	Miscellaneous	628 12 5		646 13 8	
		2,905 8 10		3,700 16 11	
			13,710 14 6	14,620 1 6	
	EXPERIMENTS.		254 16 1	100 14 6	
			16,010 8 4	16,980 13 7	
	Investments		1,000 0 0	533 2 1	
	Balance due to Bank, Jan. 1st			102 1 0	
	Balance in Bank, Dec. 31st		166 12 8		
			17,177 1 0	17,615 16 8	

January 18th, 1932.

Audited and found correct,
F. CLIFFORD GOODMAN, F.C.A.
Auditor.

Passed by Council,
January 26th, 1932.
F. H. STORR,
Secretary

The Bath and West and

Dr. CASH ACCOUNT FOR THE YEAR ENDED DEC. 31st,

RECEIPTS.	1931. BRISTOL.			1930. TORQUAY.		
	£	s.	d.	£	s.	d.
DIVIDENDS AND INTEREST.						
South Australian Stock	32	2	6		32	12 10
New Zealand Stock	54	17	6		54	17 6
India Stock	226	3	0		213	8 7
New South Wales 4% Stock	162	6	2		162	6 2
Canadian Pacific Railway Stock	46	10	0		47	5 0
Conversion 3½% Loan Stock	110	5	0		97	17 0
New South Wales 5% Stock	96	17	6		98	8 9
Income Tax returned	101	10	11		45	5 10
Bank Interest	9	16	5		6	4 1
				840	9	0
GENERAL						1 2
SUBSCRIPTIONS FROM MEMBERS.						
Arrears	30	17	0		25	13 0
Governors	128	18	0		140	0 0
Subscribers of £1 and upwards	931	7	0		860	8 0
„ „ 10/- „	8	0	0		4	0 0
				1,099	2	0
LIFE COMPOSITIONS				30	0	0
JOURNAL.						
Sales	16	0	3		8	15 0
Advertisements	32	13	11		28	18 6
Cloth Bindings	3	16	6		3	12 0
				52	10	8
IMPLEMENTS.						
Fees for Space:						
Machinery in Motion Shedding	1,229	0	0		1,023	10 0
Ordinary	291	5	0		203	15 0
Miscellaneous	93	15	0		266	5 0
Special	782	0	0		707	10 0
Uncovered Ground	930	6	9		736	9 6
Catalogue Fees	68	2	0		57	8 0
Entry Fees	86	0	0		67	0 0
Additional Assistants' Tickets	54	14	0		33	5 0
				3,535	2	9
Carried forward				5,557	4	5

Southern Counties Society.

1931, WITH COMPARATIVE STATEMENT FOR 1930.

CR.

PAYMENTS.	1931. BRISTOL.			1930. TORQUAY.		
	£	s.	d.	£	s.	d.
SALARIES.						
Secretary and Editor	650	0	0	650	0	0
Assistant Secretary	450	0	0	450	0	0
Office Staff	156	3	5	198	3	7
Auditor	30	0	0	30	0	0
Consulting Chemist	30	0	0	30	0	0
				1,316	3	5
				1,358	3	7
MISCELLANEOUS.						
Printing, Stationery and Reference Books	86	2	1	83	10	5
Postages, Telegrams, Insurance, Cheque and Receipt Stamps	90	18	8	86	13	7
Ground Rent and Rates	35	9	2	35	13	6
Property Tax	1	19	4	1	15	0
Travelling Expenses	39	15	5	79	1	9
Carriage of Goods	3	8	0	12	19	2
Subscriptions	14	7	6	14	7	6
Furniture, Repairs and Fittings	37	1	3	75	1	6
Hire of Council Rooms	3	5	0	4	5	6
Fuel and Light	17	0	11	15	3	1
Telephone	14	9	10	14	0	2
Finance Committee Expenses & Sundries	6	17	0	18	11	3
Council Grants and Allowance to Widow of late Secretary				120	0	0
				350	14	2
				561	2	5
JOURNAL.						
Printing and Stationery	296	6	1	275	1	7
Plans and Blocks	8	11	8	2	17	0
Distribution	27	6	9	28	2	0
Postages, Reference Books, etc.	9	0	8	12	10	0
Authors	36	15	0	22	1	0
				378	0	2
				340	11	7
IMPLEMENTS.						
Shedding	904	17	10	953	10	7
Stewards and Assistants	67	1	3	83	8	9
Printing, Stationery and Fees returned	56	8	5	67	4	8
				1,028	7	6
				1,104	4	0
Carried forward				3,073	5	3

Dr.

CASH ACCOUNT—*continued.*

RECEIPTS.	1931. BRISTOL.		1930. TORQUAY.	
	£	s. d.	£	s. d.
Brought forward ..			5,557	4 5
HORSES, CATTLE, SHEEP, GOATS & PIGS				
Horses : Entry Fees & Fines 463 0 3			355	10 0
Grand Stand				
Admissions .. 636 11 0			573	6 0
Special Prizes .. 227 0 0			77	0 0
	1,320	11 3	1,005	16 0
 Cattle, Sheep, Goats & Pigs.				
Entry Fees 939 12 6			809	2 0
Fines 7 0 0			6	10 0
Special Prizes 959 16 4			689	13 0
	1,906	8 10	1,565	5 6
 Catalogues, Manure and Fodder 112 19 11			114	2 0
Contribution to Sports Fund			5	0 0
	112	19 11	119	2 0
			3,346	0 0
			2,690	3 6
 POULTRY, PIGEONS & RABBITS.				
Entry Fees 94 17 9			112	0 0
Commission on Sales 18 6			4	10 6
Special Prizes			4	10 0
			95	16 3
			121	0 6
 Carried forward			8,999	0 8

CASH ACCOUNT—*continued.*

Cr.

PAYMENTS.	1931. BRISTOL.			1930. TORQUAY.		
	£	s.	d.	£	s.	d.
Brought forward ..				3,037	5	3
HORSES, CATTLE, SHEEP, GOATS & PIGS.						
Horses —Prizes 1,269	13	7		996	1	1
Shedding & Grand Stand ..	705	5	0	758	9	4
Stewards and Assistants ..	75	18	4	74	13	2
Judges, etc. ..	47	1	7	38	2	11
Fees returned ..	1	5	0			
	2,099	3	6	1,867	6	6
Cattle, Sheep, Goats & Pigs.						
Cattle Prizes 1,304	6	5		1,234	3	0
Sheep	489	0	0	663	0	0
Goats	28	10	0	27	15	0
Pigs	482	0	0	527	0	0
Dairy Herds, Prizes ..	230	0	0			
Shedding and Canvas ..	875	15	9	1,090	18	8
Stewards and Assistants ..	79	10	2	87	2	6
Judges	170	1	7	162	5	10
Fees & Prizes returned, etc. ..	40	0	0	14	2	0
	3,699	3	11	3,806	7	0
Buildings 332	13	9		436	2	10
Fodder 226	2	6		269	13	8
Forage Steward & Assistants ..	14	5	6	15	3	6
Veterinary Inspectors ..	33	14	6	52	17	8
Rosettes 15	0	0		11	0	0
Printing, Stationery, etc. ..	112	16	4	152	1	10
Refreshments for Judges ..	20	10	8	22	11	0
Sports Prizes				10	0	0
	755	3	3	969	10	6
				6,553	10	8
POULTRY, PIGEONS & RABBITS.				6,643	4	0
Shed, Staging, Pens, etc. ..	146	17	7	210	13	6
Steward and Assistants ..	30	1	2	26	10	6
Judges	16	14	9	16	6	6
Prizes	273	5	0	273	0	0
Printing, Stationery, Carriage, etc. ..	36	14	10	37	7	11
				503	13	4
Carried forward				10,130	9	3

Dr.

CASH ACCOUNT—*continued*.

RECEIPTS.	1931. BRISTOL.		1930. TORQUAY.	
	£	s. d.	£	s. d.
Brought forward ..			8,999	0 8
SHOEING.				
Entry Fees	12	12 0	17	6 0
Special Prizes			30	0 0
			12	12 0
			47	6 0
LOCAL COMPETITIONS.				
Entry Fees	1	6 6	4	6
Special Prizes	16	10 0	43	18 6
			17	16 6
			44	3 0
EDUCATION and HANDICRAFTS.				
Fees for Space, Handicrafts	73	10 0	69	6 0
Admissions to Stand	67	5 2		
			140	15 2
			69	6 0
FORESTRY.				
Entry Fees	1	12 6	3	0 0
Special Prizes	2	12 0	1	1 0
			4	4 0
			4	1 0
Carried forward			9,174	8 10

CASH ACCOUNT—continued.**CR.**

PAYMENTS.	1931. BRISTOL.			1930. TORQUAY.		
	£	s.	d.	£	s.	d.
Brought forward ..				10,130	9	3
SHOEING.						
Prizes	39	0	0			71 0 0
Judge	7	4	0			7 18 0
Anvils, Forges, Coals, Horses, Printing, etc.	10	7	7			12 10 6
Shedding	66	18	5			83 8 4
Stewards and Assistants	8	10	0			7 1 0
Exhibition of Models	14	0	0			
" (1930)	14	0	0			14 0 0
				159	17	10
LOCAL COMPETITIONS.						
Prizes	16	10	0			37 10 0
Shedding and Materials	19	8	10			13 2 2
Printing	3	8	3			2 3 6
Steward and Assistants						6 3 6
				39	7	1
BEEES						10 10 0
EDUCATION and HANDICRAFTS.						
Pavilions and Staging	208	11	10			283 8 7
Stewards and Assistants	13	4	6			20 9 6
Printing, Carriage, etc.	5	9	3			3 6 1
Physical Training Display	50	0	0			
				277	5	7
FORESTRY.						
Pavilion and Staging	90	4	9			102 5 7
Steward and Assistants	10	0	0			9 4 6
Printing, Postage, etc.	6	2	10			6 5 6
Prizes, Grants, etc.	32	15	0			31 12 7
Ditto (1930)	29	10	3			28 14 6
Judges						4 14 8
Materials for Competitions						1 1 0
				168	12	10
MUSIC.						
Band Stand, etc.	23	8	4			
Band and Expenses	166	10	0			
Steward and Assistants	9	8	6			
				199	6	10
Carried forward				10,974	18	7

Dr.

CASH ACCOUNT—continued.

RECEIPTS.				1931. BRISTOL.		1930. TORQUAY.	
				£	s. d.	£	s. d.
Brought forward ..						9,174	8 10
SMALL HOLDINGS.							
Entry Fees				5	0 0		
Prizes				50	0 0		
						55	0 0
CHEESE AND BUTTER.							
Entry Fees and Fines				75	7 6	61	11 0
Sales				14	13 0	9	2 6
Special Prizes				10	0 0	26	0 0
						100	0 6
WORKING DAIRY.							
Entry Fees, Competitions	26	15	6				27 1 0
" Tests	33	10	0				26 10 0
				60	5 6		53 11 0
Sales of Produce				81	6 6		57 11 7
Special Prizes							19 11 0
						141	12 0
CIDER.							
Entry Fees and Fine				36	8 6	38	14 0
Special Prizes				6	0 0	10	0 0
Sales						2	16 6
						42	8 6
ADMISSIONS.							
Admissions at 5/-				397	15 0	584	10 0
" " 4/-				1,623	12 0	3,023	8 0
" " 2/6				1,390	0 0	2,048	7 6
" " 2/-				575	14 0	82	2 0
" " 1/3				43	18 9		
" " 1/-				1,396	19 0	682	15 0
Schools, etc.				114	10 0	58	1 0
Season Tickets and Motors				87	0 0	121	0 6
						5,629	8 9
Carried forward						15,142	18 7

CASH ACCOUNT—continued.

Cr.

PAYMENTS.	1931. BRISTOL.			1930. TORQUAY.		
	£	s.	d.	£	s.	d.
Brought forward ..				10,974	18	7
SMALL HOLDINGS.						
Prizes	50	0	0			
Printing, Stationery and Judges ..	2	15	10			
				52	15	10
CHEESE and BUTTER.						
Judges	7	1	9			
Prizes	138	0	0			
Stewards and Assistants	8	5	10			
Pavilion and Staging	56	6	4			
Printing, Stationery, Carriage, etc. ..	6	8	10			
				216	2	0
WORKING DAIRY.						
Stewards and Assistants	54	2	7			
Judges and Demonstrators	38	13	0			
Buildings	195	6	10			
Printing, Stationery, Postage, etc. ..	8	4	11			
Utensils, Carriage, etc.	54	14	2			
Prizes	36	6	6			
Coal, Salt, Ice, etc.	9	10	7			
Milk and Cream	55	6	10			
Purchase of Plant						
				452	5	5
HORTICULTURE.						
Gratuities to Exhibitors	132	0	0			
Pavilion and Staging	203	15	3			
Steward and Assistant, Printing, etc. ..	22	4	8			
				357	19	11
CIDER.						
Pavilion and Staging	51	9	10			
Steward and Assistants	13	17	4			
Judges	5	5	0			
Prizes	76	0	0			
Analyses, Carriage, Printing, etc. ..	30	4	7			
				176	16	9
PUBLIC ANNOUNCEMENTS.						
Advertising	265	18	4			
Billposting	201	11	2			
Railway Placards	84	17	6			
Printing	66	17	2			
				619	4	2
Carried forward				12,850	3	5

DR.

CASH ACCOUNT—*continued.*

RECEIPTS.	1931. BRISTOL.		1930. TORQUAY.	
	£	s. d.	£	s. d.
Brought forward ..			15,142	18 7
SHOW (Unapportionable).				
Sales, Fittings, etc.	464	10 8	597	2 4
Contract Premiums	1,360	12 2	928	14 5
Cloak Room, Lavatories, etc. ..	106	18 7	92	15 4
Refund on Timber and Carriage ..			17	7 1
			1,932	1 5
			1,635	19 2
SUBSCRIPTIONS FROM TOWNS.				
Torquay for 1930 Show			400	0 0
Bristol for 1931 Show			800	0 0
			1,200	0 0
			17,075	0 0
			17,615	16 8
Balance in Bank, January 1st			102	1 0
			17,177	1 0
			17,615	16 8

CASH ACCOUNT—*continued.*

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PAYMENTS.	1931. BRISTOL.		1930. TORQUAY.	
	£	s. d.	£	s. d.
Brought forward ..			12,850	3 5
SHOW (Unapportionable).				
Official Buildings	1,570	16 2	1,796	1 1
Hoarding	188	5 9	291	2 10
Carriage of Plant	104	8 3	171	17 6
Stand Fittings	257	10 0	459	1 2
Insurance	57	13 0	59	15 8
Furnishing Official Buildings, etc.	48	5 6	64	3 6
Allotment Expenses, Press Refreshm'ts, etc.	47	4 1	38	13 2
Gatekeepers, Yardmen and Messengers ..	153	1 10	149	5 0
Stewards of Finance, Treasurer and Show Director	21	9 8	23	2 7
Inspector of Cash and Assistant	45	10 10	44	5 5
Secretaries' Expenses and Finance and Treasurers' Clerks	35	16 2	38	17 7
Police and Commissioners	155	16 3	336	0 8
Badges	6	17 10	7	7 4
Purchase of Plant	60	6 11	82	3 6
Catalogues, Printing, Stationery and Commission on Sale of Season Tickets ..	85	17 6	100	10 3
Telegraph and Telephone	20	15 8	32	9 5
Clock Room Sundries	9	1 9	6	0 3
Broadcasting	26	1 8		
Council Grant (1930)	10	10 0		
			2,905	8 10
			3,700	16 11
EXPERIMENTS.				
Cider -- Grant to Cider Institute	100	0 0	100	0 0
Limestone and Poor Pastures, Travelling Expenses	12	8 5	14	6
Grazing -- Council Grant	50	0 0		
Sheep Farming Survey				
Printing, etc.	13	12 1		
Travelling Expenses	78	15 7		
		92 7 8		
			254	16 1
			16,010	8 4
			16,980	13 7
Purchase of India 3% Inscribed Stock ..	649	18 9		
Purchase of Canadian Pacific Railway 4% Stock	350	1 3		
			1,000	0 0
Balance due to Bank, January 1st			166	12 8
Balance in Bank, December 31st				
			17,177	1 0
			17,615	16 8

JANUARY 18TH, 1932.

I hereby certify that I have examined the foregoing accounts for the year ended December 31st, 1931, compared the payments entered with the vouchers, and found them all in order and correct.

F. CLIFFORD GOODMAN, F.C.A.,
Auditor,

Printed Financial State- ments		£	s	d	£	s	d	£	s	d
Page										
clxx	Show Receipts as per Summary		15,052	18	4			
clxxxii	Local Contribution		800	0	0			
								15,852	18	4
clxxi	Show Payments as per Summary		13,710	14	6			
clxxxi	Less Show Plant purchased	60	6	11						
	Less 10% for Depreciation	6	0	8						
		54	6	3						
clxxvii,	Less 1930 Accounts paid in 1931	54	0	3						
clxxxi								108	6	0
					13,602	8	6			
clxxxii	Show A/cs unpaid		30	0	0			
								13,632	8	6
	Profit on Bristol Show					£2,220	9	3

BATH AND WEST AND SOUTHERN COUNTIES SOCIETY.

FOR THE

Encouragement of Agriculture, Arts, Manufactures and Commerce.

LIST OF MEMBERS, 1932.

PATRON.

HIS MOST GRACIOUS MAJESTY THE KING.

PRESIDENT.

THE RIGHT HON. THE LORD DIGBY, D.S.O., M.C., Minterne, Cerne Abbas,
Dorset.

TRUSTEES.

THE MOST HON. THE MARQUIS OF BATH, K.G.

THE RIGHT HON. THE EARL OF RADNOR.

SIR J. F. SHELLEY, BART.

H. B. NAPIER, Esq.

Names thus () distinguished are Governors.**Names thus (†) distinguished are Life Members.**** Members are particularly requested to make the Secretary acquainted
with any errors in the names or residences.*

Name.	Residence	Sub- scriptions		
		£	s.	d.
*†His Most Gracious Majesty the King	Windsor Castle .. .. .	..	..	..
*†Wales, H.R.H. Prince of, K.G.	St. James' Palace, London .. .. .	..	..	..
*†York, H.R.H. Duke of, K.G.	St. James' Palace, London .. .. .	..	..	..
Ackers, Chas. P.	Huntley Manor, Gloucester	1	0	0
Ackers, Mrs.	Huntley Manor, Gloucester	1	0	0
Acland, Col. A. Dyke ..	Feniton Court, Honiton	1	0	0
Acland, Right Hon. Sir F. Dyke, Bart.	Killerton, Exeter	1	0	0
Adams, Rowland	The Rosery, Long Ashton, Bristol	1	0	0
*Alexander, G. C.	Manor House, Winterbourne Stoke, Salisbury	2	2	0
Alexander, Hubert	5, High Street, Cardiff	1	1	0
Alfa Laval Co. (Ltd.) ..	Alfa Laval House, 34, Grosvenor Road, London, S.W.1.	1	0	0
Allen, A.	Chesterblade, Shepton Mallet	1	0	0
Allen & Foster	Corn and Seed Merchants, Shepton Mallet	1	1	0
Allen, W. T.	Bradley House, West Pennard, Bridgwater	1	0	0

Subscriptions.

clxxxv

Name	Residence	Sub- scriptions		
		£	s.	d.
Allison, F.	Newbiggin, Penrith, Cumberland..	1	0	0
Anglo-Continental Works	Guano Dock House, Billiter Street, E.C.3.	1	0	0
Anstruther, C. J.	Woolston Grange, Williton, Somerset	1	1	0
*†Aplin, R. M. S.	Southdown, Warminster, Wilts			
†Aplin, Mrs. R. M. S.	Southdown, Warminster, Wilts			
Argent, W. A.	Ghyll Manor, Ruspur, Sussex	1	0	0
Armitage, G. P.	Conkwell Grange, Limpley Stoke, near Bath	1	0	0
Armitage, S. C.	Lenton Fields, Nottingham	1	0	0
Armitage, T. C.	Dean Court, Taunton	1	1	0
Armitage, Mrs.	Dean Court, Taunton	1	1	0
Armstrong, J. E. Evitt	Woodlands, Leigh Woods, Bristol	1	0	0
Arnold & Sons	61, Welbeck Street, London, W.1	1	0	0
†Ashcombe, Lord	Denbies, Dorking			
Asher, S. G.	Ascot Place, Ascot	1	0	0
Associated Manufacturers Co.	46-48, Wharfedale Road, Kings Cross, London, N.1	1	0	0
*Astor, Viscount	Cliveden, Taplow, Bucks	2	0	0
Atherton, J. E.	Kingcott Farm, Flax Bourton, Som.	1	0	0
Atteridge, F. D.	Avon Manure Co. (Ld.), St. Philip's Marsh, Bristol	1	1	0
Attwooll, J. & Co.	Uley, Dursley, Glos.	1	0	0
Austin, A.	Newton House, Sturminster Marshall, Dorset	1	0	0
Austin, E. A.	Baltonsborough, Glastonbury	1	1	0
†Avebury, Lord	High Elms, Hayes, Kent			
Avon Manure Company (Ld.)	St. Philip's Marsh, Bristol	1	0	0
Awdry, E. M.	Chippenharn, Wilts	1	1	0
Ayre, W.	Hurcot, Somerton, Somerset	1	1	0
Babcock, Miss	Shawlands, Lingfield, Surrey	1	0	0
Badock, S. H.	Holmwood, Westbury-on-Trym, Bristol	1	1	0
Bailey, Lt.-Col. F. G. G.	Lake House, Salisbury	1	0	0
Bailey, W. T. & A. G.	Grist House Farm, Hemel Hempstead, Herts.	1	0	0
Baillie-Hamilton, The Hon. C. W.	1, Montague Place, London, W.1	1	1	0
Bainbridge, Mrs. R. C.	Elfordleigh, Plympton, Devon	1	0	0
Baker, Herbert M.	The Holmes, Stoke Bishop, Bristol	1	0	0
†Baker, Hiatt C.	Oaklands, Almondsbury			
Balmain, Major J. A. S.	Alford House, Castle Cary	1	0	0
Bamford, J.	(Bamfords, Ld.), Uttoxeter	1	0	0
Bamlett, A. C. (Ld.)	Thirsk	1	0	0
Bankier, Capt. A. A.	Calvary Club, London	1	0	0
Barber, J. Guttridge	Fylde House, Oxford Road, Exeter	1	0	0
Barham, G. T.	Sudbury Park, Wembley, Middlesex	1	1	0
Barker, Prof. B. T. P., M.A.	Research Station, Long Ashton, Bristol	1	0	0
*Barker-Hahlo, H. . . . .	. . . . .	2	0	0

Name	Residence	Subscriptions		
		£	s.	d.
Barkla, Stinchcombe & Cole (Ld.)	69, Queen Square, Bristol	1	0	0
Barnes, Capt. Sedley	Trent Manor, Sherborne, Dorset ..	1	0	0
Barnes, Major-Gen. Sir R. W. R., K.C.B., D.S.O.	Oakhay, Stoke Canon, near Exeter ..	1	0	0
Barnett, D. P.	Walterston, Llancarvan, Cowbridge ..	1	0	0
†Barrett, A. G.	Eastbrook, near Taunton .. ..	..	..	..
Barrett, Col. W.	Moredon, North Curry, Taunton ..	1	0	0
Barry, Lieut.-Col. A. P.	Conigar, Carhampton, Taunton ..	1	0	0
Barstow, J. J. J.	The Lodge, Weston-super-Mare ..	1	1	0
Basic Slag and Phosphate Co. (Ld.)	69, Queen Victoria Street, London, E.C.4.	1	1	0
Bastard, H. E.	Tinten Manor, St. Tudy, S.O., Cornwall	1	0	0
Bate, F. A.	Launceston, Cornwall	1	0	0
*†Bath, Marquis of, K.G.	Longleat, Warminster .. ..	..	..	..
Bath, Major R.	Glastonbury	1	0	0
Bath Gas Company	Bath	1	0	0
Bathurst, Major Sir F. Hervey, Bart., D.S.O.	Somborne Park, King's Somborne, Hants	1	1	0
Bathurst, Lady K. Hervey	Somborne Park, King's Somborne, Hants	1	1	0
Batstone, E. J.	54, High Street, Wells, Somerset ..	1	1	0
Batt, Lt.-Col. R. C., C.B.E., M.V.O.	Gresham Hall, Norwich	1	0	0
*†Batten, Major H. C., D.S.O.	Aldon, Yeovil .. ..	..	..	..
†Baxendale, J. Noel	Froxfield Green, Petersfield .. ..	..	..	..
Bayford, Lord	Bayford Lodge, Wincanton	1	0	0
†Beadle, F.	Stowey Farm, Timberscombe, Taunton .. ..	..	..	..
Beak, J. D.	Maiden Bradley, Bath	1	1	0
Beauchamp, D. C.	Upton House, Upton Cheyney ..	1	0	0
Beauchamp, Sir F. B., Bart.	Woodborough House, Peasedown St. John, Bath	1	1	0
Beauchamp, J. F. H.	Woodborough House, Peasedown St. John, Bath	1	0	0
Beauchamp, L. B.	Norton Hall, near Bath	1	0	0
*Beaufort, Duke of	Badminton, Gloucestershire ..	2	0	0
Bedford, Duke of, K.G.	Woburn Abbey, Bletchley	1	0	0
Bell, Major H. J., M.C.	Bakers Farm, Shipley, Horsham ..	1	0	0
Bennett, Brothers	Journal Office, Salisbury	1	1	0
Bennett, G. H.	Says Court, Frampton Cotterell, near Bristol	1	0	0
Bennett, R. A.	Thornbury, Glos.	1	0	0
Benyon, H. A.	Upton Court, near Reading	1	1	0
*Benyon, J. Herbert	Englefield House, Reading	5	0	0
Berry, Sir Gomer, Bart.	Pendley Stock Farms, Tring, Herts ..	1	0	0
Berryman, Sir F. H.	Field House, Shepton Mallet	1	1	0
Bessant, W.	Skinnars Farm, Wooland, Blandford, Dorset	1	0	0

Name.	Residence.	Subscriptions.		
		£	s.	d.
†Best, F. C.	Vivod, Llangollen	1	0	0
†Best, H. G.	Vivod, Llangollen	1	0	0
Best, Major T. W.	The Malt House, Gillingham, Dorset	1	0	0
†Best, Capt. W.	Vivod, Llangollen	1	0	0
†Best, Mrs. W.	Vivod, Llangollen	1	0	0
Best, Hon. J. W., O.B.E.	Hincknowle, Melplash, Dorset	1	0	0
Best, Hon. Mrs. J. W.	Hincknowle, Melplash, Dorset	1	1	0
Beynon, Sir J. W., Bart., C.B.E.	Merthyr House, Cardiff	1	1	0
Bindley, W. A.	Woodcote Lodge, Bromsgrove, Worcs.	1	0	0
Birmingham, C.	Nutscale, The Parks, Minehead	0	10	0
Bisdec, T. G.	Hutton Court, Weston-super-Mare	1	0	0
†Blackburn, H. P.	Donhead Hall, Salisbury	1	0	0
†Blackstone, G. M.	Blackstone & Co., Ltd., Stamford	1	0	0
Blackwell, R.	Basket Factory, Braunton, N. Devon	1	0	0
Blair, D. R.	Furnivalls, Amersham, Bucks	1	0	0
Bland, Major V. S.	The Warren, Aldbourne, Marl- borough, Wilts	1	0	0
Blathwayt, R. W.	Dyrham Park, Chippenham	1	1	0
†Bledisloe, Lord, K.B.E.	Lydney Park, Gloucester	1	0	0
Board, W. R.	Great Frampton, Llantwit Major, Cardiff	1	0	0
*†Boles, Lt.-Col. Sir Dennis F., Bart., C.B.E., D.L.	Watts House, nr. Taunton	2	0	0
*Boles, G. F.	Watts House, nr. Taunton	2	0	0
Bolitho, Lieut.-Col. E. H. W., D.S.O.	Trengwainton, Chyandour, Penzance	1	0	0
Bolitho, R. F.	Ponsandane, Penzance	1	1	0
Bond, E. (W. Evans & Co.)	Hele, Gullompton	1	1	0
Boots Pure Drug Co. (Ltd.)	Station Street, Nottingham	1	0	0
Boscawen, Rev. A. T.	Ludgvan Rectory, Long Rock, R.S.O., Cornwall	1	0	0
Braby, F. & Co. (Ltd.)	Ashton Gate Works, Bristol	1	0	0
Brake, A.	Higher Farm, Limington, Yeovil	1	0	0
Brassey, Col. E., M.V.O.	Dauntsey Park, Chippenham	1	0	0
†Brassey, Capt. R. B.	Cottesbrooke Hall, Northampton	1	0	0
Bray, Miss E.	Devon C.C. Offices, 1, Richmond Road, Exeter	1	0	0
Brent, C.	Clampit, Callington, Cornwall	1	0	0
Brenton, W. (Ltd.)	St. Germans, Cornwall	1	0	0
Bridges, J. W.	Croydon Hall, Washford, Somerset	1	0	0
<i>Bristol Times and Mirror</i> , Proprietors of	Bristol	1	0	0
Brittan, Col. R., D.S.O.	Failand Hill, Failand, Bristol	1	0	0
Britten, Forester	Kenswick Manor, Worcester	1	0	0
British Oil & Cake Mills (Ltd.)	Cleveland Street, Hull	1	0	0
†Broadmead, H.	Enmore Castle, Bridgwater	1	0	0
Brocklebank, Mrs.	Charlton Mackrell Court, nr. Taunton	1	0	0
†Brocklehurst, H. D.	Sudeley Castle, Winchcombe	1	0	0
Brooks, E. K.	Coombe Farm, Thatcham, Berks	1	0	0

Name.	Residence.	Sub- scriptions		
		£	s.	d.
Brooksbank, H. L.	Sandrook, Tickhill, Yorks	1	1	0
Brown, A. B. & Son	69, Whiteladies Road, Clifton, Bristol	1	1	0
Brown, F. E.	1,403, Neath Road, Swansea	1	0	0
Brown, J.	Tellisford House, Clifton Down, Bristol	1	0	0
Browne, Capt. A. S. C.	Gorsey Leaze, Malmesbury	1	0	0
Browning, T.	Nash End Farm, Eastington, Stonehouse, Glos.	0	10	0
Browning, W.	Nash End Farm, Eastington, Stone- house, Glos.	0	10	0
†Bruford, E. J.	Nerrols, Taunton .. ..	..	..	..
Bruford, R.	Nerrols, Taunton	1	0	0
Brymer, W. J.	West Down Lodge, Winchester	1	0	0
Buchanan, W. G.	Manor House Farm, Abergavenny	1	0	0
Buck, D.	Pentwyn, Caerleon, Mon.	1	0	0
Buckingham, Rev. C. L.	Bickleigh Rectory, near Tiverton.. ..	1	1	0
†Buckingham, Rev. Preb.	Leigh House, Manston Terrace, Exeter, .. ..	..	..	..
*†Buist, H. Massac	9 & 10, Gardnor Mansions, Church Row, Hampstead, London, N.W.3 .. ..	..	..	..
Buller, Capt. M. L.	Downes, Crediton	1	0	0
Buncombe, E. H.	Ford House, Wellington, Somerset	1	1	0
Burdon, Lt.-Col. W. B. C.	West Crudwell, Malmesbury	1	0	0
Burnard & Alger	Plymouth	1	0	0
Busfield, Miss L.	Raysfield, Chipping Sodbury	1	0	0
*†Bush, C. de Lisle	Eastington Park, Stonehouse, Glos. .. ..	..	..	..
†Bush, H. G.	The Grove, Alveston, Glos. . . . .	..	..	..
Bush, Mrs. L. E.	St. Mary's, Atlantic Road, South, Weston-super-Mare	1	1	0
Busk, Mrs.	Wraxall Manor, Cattistock, Dorset	1	0	0
*Bute, The Marquis of	The Castle, Cardiff	2	0	0
Butler, W.	Gatcombe Farm, Flax Bourton, Bristol	1	0	0
†Buxton, Major Gerard	Tockenham Manor, Wootton Bassett, Wilts .. ..	..	..	..
Caesar, H. and J.	Knutsford, Cheshire	1	0	0
Cadbury, Major Egbert	Oakleigh, Leigh Woods, Bristol	1	0	0
*Calley, Major-Gen. T. C. P., C.B., M.V.O.	Burderop Park, Swindon	2	0	0
Calley, Miss	Burderop Park, Swindon	1	0	0
†Calmady-Hamlyn, Miss	Pearroc Vean, Buckfast, S. Devon .. ..	..	..	..
Calvert, Mrs. C. M. L.	Banwell Castle, Banwell, Somerset	1	0	0
†Campbell, C. H. .. ..	.. ..	..	..	..
Campbell, J.	31, St. Albans Road, Swansea	1	0	0
Candy, G. J.	Spring, Gardens Farm, nr. Frome	0	10	0
Candy, W. T.	Walton Farm, Kilmersdon, nr. Bath	0	10	0
Canford Schools	Hillsborough Farm, Canford Magna, Dorset	1	0	0

Name	Residence	Subscriptions.		
		£	s.	d.
Capel, A.	Balland Lodge, Wiveliscombe, Som.	1	1	0
Carew, C., M.P.	Collipriest, Tiverton	1	0	0
Carleton, Guy	6, Audley Square, London, W.1.	1	0	0
Carpenter, H. F.	Orange Farm, Kilmersdon, nr. Bath	0	10	0
Carter, J. & Co.	Raynes Park, London, S.W.	1	0	0
Cartwright, T. G.	30, Beaufort Gardens, London, S.W.	1	0	0
†Cary, John	The Priory, Shepton Mallet . . . . .	..	..	..
†Cary, W. H.	Junior Constitutional Club, Piccadilly, London, W.1. . . . .	..	..	..
Castleman, E. W. F.	Chettle, Blandford, Dorset	1	0	0
Cataline Co. (Ld.)	Bristol	1	0	0
Cattybrook Brick Co. (Ld.)	9 & 11, St. Stephen's Street, Bristol	1	0	0
Cave, Captain A. L.	Sherwood, Newton St. Cyres, Exeter	1	0	0
Cave, Sir C. H., Bart	Sidbury Manor, Sidmouth	1	0	0
Cave, E. C.	Pacombe, Sidford, Sidmouth, Devon	1	0	0
Cave, Mrs. E. C.	Pacombe, Sidford, Sidmouth, Devon	1	1	0
Cecil, Lt.-Col. R. E., D.S.O.	Passford House, Lymington, Hants.	1	0	0
Chaffe, H.	Harestone, Brixton, S. Devon	1	0	0
Chamberlain, T. A.	Belmont House, Flax Bourton, Som.	1	0	0
Chester, J. & Co.	York House, Newmarket	1	0	0
†Chick, J. D.	3, Bellvue Terrace, Wilton, Taunton	..	..	..
†Chick, J. H.	Wynford Eagle, Maiden Newton, Dorset . . . . .	..	..	..
†Chick, W. D.	Compton Valence, Dorchester . . . . .	..	..	..
Chidgey, H.	Plume of Feathers Hotel, Minehead	1	1	0
Chillingworth, C. A.	Barton Farm, Siddington, Ciren- cester	1	0	0
Chivers and Son	Histon, Cambridge	1	0	0
Christian, E.	Otterbourne House, nr. Winchester	1	0	0
Chubb, Sir C., Bart.	Bapton Manor, Codford, Wilts	1	0	0
Churchill, Viscount, G.C.V.O.	Carlton Club, Pall Mall, London, S.W.1	1	0	0
†Churchward, F.	Hill House, Stoke Gabriel, Totnes	..	..	..
Clare, A. J.	Beach House, Wells	1	0	0
*Clarendon, Earl of	Pitt House, Hampstead, London, N.W.3	2	2	0
Clark, H.	Keward House, Wells	1	0	0
Clark, Hugh B.	Butleigh, Glastonbury	1	0	0
Clark, R.	Glastonbury	1	0	0
†Clarke, C. S.	Tracy Park, near Bath . . . . .	..	..	..
Clarke, J. W.	Bridwell, Cullompton	1	0	0
Clarke, R. A. & Sons	Manor Farm, Chiselborough, Stoke- under-Ham	1	0	0
Clatworthy, E.	Cutsey, Trull, Taunton	1	1	0
†Clatworthy, W. B.	Cutsey, Taunton . . . . .	..	..	..
*Clifden, Viscount	Lanhydroc, Bodmin	2	0	0
Clifford, E. G.	Manley Farm, Quenington, Ciren- cester	1	0	0
Clifton Brown, E.	Burnham Grove, Burnham, Bucks	1	1	0

Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Clinton, Lord.. ..	Heanton Satchville, Dolton, N. Devon	1	0	0
Cobb, R.	Watlynge, near Rochester.. ..	1	0	0
†Cochrane, G.	Athelhampton, Dorchester .. ..	..	..	..
†Cochrane, Mrs. G.	Athelhampton, Dorchester .. ..	..	..	..
Colborne Vivian, Hon. Mrs..	Bosahan, St. Martin's, S.O., Cornwall	1	0	0
*Coldwell, Major R. C. ..	Spring Grove, Milverton, Somerset	2	0	0
Colebrook, H. J.	Fulmer Hall, Fulmer, Bucks	1	0	0
Coleridge, Lord	The Chanter's House, Ottery St. Mary, Devon	1	0	0
Collet, Sir Mark, Bart. ..	St. Clare, Kemsing, Sevenoaks	1	0	0
Collins, J. S.	St. George's Lodge, Oldfield Park, Bath	1	1	0
Colman, Sir J., Bart. ..	Gatton Park, Surrey	1	0	0
Combes, D.	Dinton, Salisbury	1	0	0
Conacher, Murray	The Royal Farms, Windsor	1	0	0
Cook, R.	Woodhayes, Tiverton	1	0	0
Cooper, Sir G., Bart	Hursley Park, Winchester	1	0	0
Corbett, E. W. M.	Bute Estate Office, Cardiff	1	1	0
Cornish, Dr.	Pixford, Taunton	1	0	0
†Cornwallis, Lord, C.B.E., D.L.	Linton Park, Maidstone .. ..	..	..	..
Cory, Sir Clifford J., Bart., D.L.	Llantarnam Abbey, Mon.	1	0	0
Cory-Wright, Miss B. G. ..	Norcott Hill, Berkhamsted, Herts	1	0	0
Coryton, Capt. J. T.	Pentillie Castle, St. Mellion	1	0	0
†Cotterell, Sir J. R. G., Bart.	Garnons, Hereford .. ..	..	..	..
†Courage, Raymond .. ..	.. ..	..	..	..
Courtenay, Capt. P. D. A. ..	Greenlawn, Burnham-on-Sea, Somerset	1	1	0
Courthope, Col. Sir G. L., Bart., M.P.	Whiligh, Sussex	1	0	0
Cowie, G. A. (United Potash Co., Ltd.)	112, Fenchurch Street, London, E.C.3	1	0	0
Cowlin, Frank N.	Rodborough House, Sneyd Park, Bristol	1	0	0
Cox, H. C.	Twatley, Malmesbury	1	0	0
Cox, S. V.	Pwlpen Farm, Bishpool, Newport, Mon.	0	10	0
Cramond, H.	103, Wellsway, Bath	1	0	0
Crawford, H. W.	Lloyd's Bank Chambers, Swansea	1	0	0
Creed, A. J.	Goldicote Hall, Stratford-on-Avon	1	0	0
Criddle, A. M. B.	Worle, Weston-super-Mare	1	0	0
Cridlan, J. J.	Maisemore Park, Gloucester	1	0	0
Crosby H.	Nether Stowey, Bridgwater	1	1	0
*Cross, Major J. K. Carlton ..	Wyke Hall, Gillingham	2	0	0
Crowther, F. C. (Co-op. Wholesale Society)	1, Balloon Street, Manchester	1	0	0
Crumpler, J.	Longlands, North Coker, Yeovil	1	1	0
Crutchley, P. E.	Limminghill Lodge, Ascot.. ..	1	0	0
Cumber, W. J.	Theale, Berks	1	0	0

Subscriptions.

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Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Cuming, Edwin J.	Langhill, Moretonhampstead, Devon	1	0	0
Cundall, Capt. C.E., R.N.	Fairlawn, Parry's Lane, Stoke Bishop, Bristol	1	0	0
Cundall, H. M., I.S.O., F.S.A.	4, Marchmont Gardens, Richmond Hill, Surrey	1	0	0
Currie, L.	Minley Manor, Farnborough, Hants.	1	0	0
†Daniel, H. T.	The Red House, Cannington, Bridgwater . . . . .	..	..	..
Darby, E.	Liscombe, Dulverton	1	0	0
†Darell, D.	Hillfield House, Stoke Fleming, near Dartmouth . . . . .	..	..	..
†Daresbury, Lord	Walton Hall, Warrington . . . . .	..	..	..
Dartington Hall (Ld.)	Dartington, Totnes, Devon	1	0	0
Davey, Sleep & Co. (Ld.)	Excelsior Plough Works, Plymouth	1	0	0
Davey Capt. R.E.	The Mount, Newton St. Loe, Somerset	1	1	0
†Davey, T. R.	Wraxall Court, near Bristol . . . . .	..	..	..
David & David	11, Cathedral Road, Cardiff	1	0	0
*†Davies, Maj.-Gen. G.F., M.P.	Leigh House, Chard, Somerset	1	0	0
Davis, H. W.	Goldsborough Farm, Sutton Montis, Yeovil, Somerset	1	0	0
Davis, Col. W. N.	Brookside, Salt Hill, nr. Slough, Bucks	1	1	0
Daw, J. E.	4, Louisa Terrace, Exmouth	1	1	0
Dawe, R. R.	Ford Farm, Tavistock, Devon	1	0	0
Dawnay, Major-Gen. G. F.	Longparish House, Whitchurch, Hants.	1	0	0
Dawson, C. F.	14, Henleaze Road, Westbury-on- Trym, Bristol	1	0	0
Dawson, Miss N.	Holne Park, Ashburton, S. Devon	1	0	0
Day, J.	Ston House, East Pennard, Shepton Mallet	1	1	0
Day & Sons (Ld.)	Crewe	1	0	0
Day, Son & Hewitt (Ld.)	22, Dorset Street, London, W.1	1	0	0
*†Debenham, E. R.	Briantspuddle, Dorchester . . . . .	..	..	..
Debenham, H. B.	Manor House, Glanvilles Wootton, Sherborne, Dorset	1	0	0
Deck H. (Ransomes, Sims & Jefferies (Ld.)	Orwell Works, Ipswich	1	0	0
†Delme-Radcliffe, Lt.-Col. A., D.S.O. . . . .	.. . . .	..	..	..
De Rothschild, Mrs. L.	Exbury, Southampton	1	0	0
Denning & Co.	Chard, Somerset	1	0	0
Dennis, S.	Latton, Cricklade, Wilts	1	0	0
†Devas, H. G. . . . .	.. . . .	..	..	..
Devenish, H. N.	Little Dunford, Salisbury	1	0	0
Devon & Somerset Veterinary Medicine Co.	North Petherton, Bridgwater	1	0	0
Dickinson, W. F.	Kingweston, Taunton	1	0	0

Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Dickson & Robinson ..	Cathedral Street, Manchester ..	1	1	0
*†Digby, Major, The Lord D.S.O., M.C. (Coldstream Guards)	Minterne, Cerne Abbas, Dorset ..	..	..	..
Digby, Major F. J. B. Wing- field, D.S.O.	Sherborne	1	0	0
Dinam Estates Co.	The Offices, Llandinam, Mont- gomery	1	0	0
†Dixon, Oliver	Crescent House, Reading .. ..	..	..	..
†Dobson, H. V.	Bath and County Club, Bath .. ..	..	..	..
Dorman, C. I. Paget	Brockley Court, Brockley, Flax Bourton	1	0	0
Dormer, C. W. C.	Rousham, Oxford	1	0	0
Dorse, E. G.	Trull, Taunton	1	0	0
Drew W. (Harrison, McGregor & Co.)	Albion Iron Works, Leigh, Lancs.	1	0	0
Dronsfeld, W. B.	Wilmeote Hill, Stratford-on-Avon	1	0	0
Drummond, Sir Dudley W., K.B.E.	Cawdor Estate Office, Carmarthen	1	0	0
Ducie, Earl of	Tortworth Court, Falfield, Glos. ..	1	0	0
Duckworth, Major A. C. ..	Orchardleigh Park, Frome	1	0	0
Dulverton, Lord	Batsford Park, Moreton-in-Marsh, Glos.	1	0	0
Dunkels, W.	Fernhill Park, Windsor Forest ..	1	0	0
Dunlop, I. M.	Avonhurst, Sneyd Park, Bristol ..	1	0	0
Dunlop, J. (British Basic Slag (Ld.)	Wellington House, Buckingham Gate, London, S.W.1	1	0	0
Dyke, Col. P. H.	Huish, Chagford, Devon	1	0	0
Eagle Range and Gas Stove Company (Ld.)	Catherine St., Aston, Birmingham	1	0	0
*Earl, H. F.	Fontmell Magna, Shaftesbury ..	2	0	0
Eason, J. T.	Woodhouse Farm, Imannel, Andover, Hants	1	0	0
*†Eastwood, J. E.	Middleham, Ringmer, Lewes ..	..	..	..
Economic Fencing Company (Ld.)	Billiter House, Billiter Street, London, E.C.3.	1	0	0
Eden, R. H. H.	Heytesbury, Wilts.	1	0	0
Edgell, W. & A.	Radstock, Bath	1	0	0
Edlington, J. B. & Co.	Phoenix Works, Gainsborough ..	1	0	0
†Edmondson, A.	Woodclose, Silverdale, Lancashire	..	..	..
Edwards, A. P.	Gog's House, Wedmore, Somerset	1	1	0
Edwards, Lt.-Col. C. W. (Spillers, Ld.)	40, St Mary Axe, London, E.C.3 ..	1	0	0
Edwards, Capt. D.	Home Farm, Barrow Gurney, Somerset	1	0	0
Edwards, W. H. G. ...	Butcombe Court, Wrington ..	1	0	0
*Edwards-Ker, Lieut.-Col. D. R., O.B.E., M.A. ..	Principal, Seale Hayne Agricul- tural College, Newton Abbot ..	2	0	0

Subscriptions.

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Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Eldridge, Pope & Co.	Dorchester	1	0	0
Elton, Sir A., Bart.	Clevedon Court, Clevedon, Som. . .	1	0	0
Elton, B. A.	Langford, near Bristol	1	0	0
Elwes, Lt.-Col. H. C., D.S.O., M.V.O.	Colesborne, Cheltenham	1	1	0
Elworthy, W. R.	Southmead, Monkton, Dorchester	1	0	0
Esdaile, W. C. H.	Cothelstone House, Taunton	1	0	0
Eustice, G. H.	Bezurrell, Gwinear, Hayle, Cornwall	1	0	0
Evans, T.	Highfield, Sketty, Glam.	1	0	0
†Eve, Mr. Justice	Royal Courts of Justice, London, W.C.2 .. ..	..	..	..
Evelyn, Mrs	Wotton House, near Dorking	1	0	0
<i>Evening World</i>	Northcliff House, Colston Avenue, Bristol	1	1	0
Fairweather, E. D.	Manor House, Waltham St. Lawrence, Berks	1	0	0
*†Falmouth, Viscount	Tregothnan, Truro .. ..	..	..	..
†Fane, J. Onslow	Steventon Manor, Steventon, Basingstoke .. ..	..	..	..
Fane, Major N. H.	Boyton Manor, Codford, Wilts	1	0	0
†Farwell, Major E. W.	Hylton Estate Office, Kilmersdon, Bath .. ..	..	..	..
Fastnut (Ld.)	62, Finsbury Pavement, London, E.C.2	1	0	0
Faudel-Phillips, Major H.	Broome Manor, Swindon	1	0	0
Ferriman, W. R.	Home Farm, Ashton Court Estate, near Bristol	1	0	0
Ferris, T. H. S.	4, Market Place, Devizes	1	0	0
Fewtrell, O. J.	Estate Office, Wells	1	0	0
ffennell, Col. R.	Wytham, Oxford	1	1	0
Firth, Capt. C. P. L.	Compton Durville Manor, South Petherton, Somerset	1	0	0
*Fitzgerald, Lady	Buckland, Faringdon, Berks.	2	0	0
FitzGerald, Mrs. M. M.	Marsden Manor, Cirencester	1	0	0
Fitzwalter, Lord	Goodnestone, Dover	1	0	0
Fitzwilliams, Col. E. C. L., C.M.G.	Brynteifi, Pentrecourt, Llandyssul	1	1	0
Fleming, Mrs. P.	Grendon Hall, Aylesbury, Bucks.	1	0	0
Flemming, Lt.-Col. Gordon	Norton Beauchamp, Kewstoke, Somerset	1	1	0
Fletcher, Capt. A. M. T.	Margam Park, Port Talbot	1	0	0
Fodens (Ld.)	Sandbach, Cheshire	1	0	0
Ford, R.	Hartfield, Cotham Park, Bristol	1	0	0
*†Forester, Capt. F. W.	Hurcot House, Salisbury .. ..	..	..	..
Forshaw, Dr. W. H.	Slythehurst, Ewhurst, Guildford	1	0	0
†Fortescue, J. B.	Boconnoc, Lostwithiel, Cornwall .. ..	..	..	..
Fortune, R.	Newhouse, Cranleigh, Surrey	1	0	0
Four Oaks Spraying Machine Co. (Ld.)	Four Oaks Works, Sutton Cold- field	1	0	0
Fowler, John & Co. (Leeds) Ld.	Leeds	1	0	0

Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Fox, Brothers & Co. ..	Wellington, Somerset ..	1	1	0
Fox, Mrs. A.	Brislington House, near Bristol ..	1	0	0
Fox, C. L.	Rumwell Hall, Taunton ..	1	0	0
Fox, J. H.	Robins Close, Wellington, Somerset ..	1	1	0
Fox, R. A.	Yate House, Yate, Glos. ..	1	1	0
Francis, F. S.	Wilkinthroop, Templecombe ..	1	1	0
Frank, Mrs. H.	Saddlewood, Wotton-under-Edge, Glos. ..	1	0	0
French, Col. C. N., C.M.G., C.B.E.	Fitz House, Teffont Magna, Salisbury ..	1	0	0
French, W. T. & Son ..	St. Mary Street, Ladywood, Bir- mingham ..	1	0	0
Fricker, J., Junr.	Bridge Close Farm, Hardington, Yeovil ..	1	0	0
Fry, A. M.	8, Zion Hill, Clifton, Bristol ..	1	1	0
Fry, C. A. H.	Ashton Lodge, Long Ashton, Bristol ..	1	0	0
Fry, Mrs. C. Harrington ..	Ashton Lodge, Long Ashton, Bristol ..	1	0	0
Fry, H. A.	Monmouth Place, Bath ..	1	1	0
*Fry, J. S. & Son (Ld.) ..	Union Street, Bristol ..	2	2	0
Fryer, W. J.	Holme Park, Sonning, Berks ..	1	0	0
*Fuller, Major R. F.	Great Chalfield, Melksham, Wilts. .	2	0	0
Fuller, Mrs. R. F.	Great Chalfield, Melksham, Wilts. .	1	0	0
Fuller, S. & A.	Bath ..	1	0	0
Gale, G.	The Grove, Winterbourne, near Bristol ..	1	0	0
Gardiner, Sons & Co.	Nelson Street, Bristol ..	1	1	0
Garne, W.	Aldsworth, Northleach ..	1	1	0
Garnett, W.	Backwell Hill House, West Town, R.S.O., Somerset ..	1	0	0
Garton, J. A., M.C.	Pylle Manor, Shepton Mallet, Somerset ..	1	0	0
Garton, R. V.	Langbourne, Blandford, Dorset ..	1	0	0
Gee, Mrs. Brightrie	Curragheen, Chew Magna, nr. Bristol ..	1	0	0
Gee, George	Ely Grange, Frant, Tunbridge Wells ..	1	0	0
George, P.	Hill Side, Barrow Gurney, Bristol ..	1	0	0
Gibbins, T.	Glynfelin, Neath ..	1	0	0
†Gibbs, Major A. H.	Pytte, Clyst St. George, Exeter ..	..	..	..
†Gibbs, Mrs.	Pytte, Clyst St. George, Exeter ..	..	..	..
Gibbs, Rev. J. S., M.C.	The Vicarage, Badminton, Glos. ..	1	0	0
Gibbs, Lt.-Col. W. O.	Barrow Court, Flax Bourton, Somerset ..	1	0	0
†Gibbs, Mrs. W. O.	Barrow, Court, Flax Bourton, Somerset ..	..	..	..
Gifford, A. R.	Kingmans Farm, Hemington, nr. Bath ..	0	10	0
†Gladstone, J.	Bowden Park, Chippenham ..	..	..	..
Gladstone, T. H.	Eastcote Grange, Hampton-in- Arden ..	1	0	0
Glansely, Lord	Exning House, Newmarket ..	1	0	0

Subscriptions.

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Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Glencross, T.	The Chestnuts, Seagry, Chippenham	1	0	0
Glico Petroleum (Ld.)	Alexandra House, Queen Square, London, W.C.1	1	0	0
Glover, J. H.	Cornwood, S. Devon	1	0	0
Glyde, J. Chaffey	Holmfield, Portishead	1	0	0
Glyn, Capt. Sir R. F., Bart., D.S.O.	Gaunts House, Wimborne, Dorset	1	0	0
Godfrey, J. B.	Downside Farm, Shepton Mallet	1	0	0
†Godman, C. B.	Woldringfold, Horsham . . . . .	..	..	..
Godman, J.	The Raswells, Hascombe, God- alming	1	0	0
Godwin, Warren and Co., (Ld.)	140, Redcliffe Street, Bristol	1	0	0
Goldsmith, Exors. of the late J.	Blendworth, Horndean, Cosham, Hants	1	0	0
Golledge, T. H.	Yew Tree House, Wraxall, Shepton Mallet	1	0	0
Goodman, A. & Sons	3, Hammett Street, Taunton, and Broad St. House, London, E.C.	1	0	0
*Gordon, Major R.G.S., M.C.	Langton House, Blandford	2	0	0
Gough, Major G.	13, Grosvenor Place, London, S.W.1	1	0	0
Graham-Clarke, Capt. J. E. H.	Frocester Manor, Stonehouse, Glos.	1	0	0
Gray, J. G.	Rosehill, Coventry	1	1	0
Greaves, R. M.	Wern, Portmadoc, North Wales	1	0	0
Green, A. W.	Stoke Abbey Farm, Stoke Bishop, Bristol	1	0	0
Green, H.	Dudwell Farm, Chewton Mendip	1	0	0
†Green, Major H. L.	The Hall, Paulton Lanulyn, Bromborough, Cheshire . . . . .	..	..	..
†Greenall, Mrs. C. E.	The Manor, Carlton Scroop, Grantham . . . . .	..	..	..
Greenwell, Sir B., Bart.	Marden Park, Woldingham, Surrey	1	0	0
Gregory, W. & Co.	Wellington, Somerset	1	1	0
†Guest, Miss . . . . .	.. . . .	..	..	..
*Guilford, Earl of	Waldershare Park, Dover	2	0	0
Guille, H. C. de Stevens	Westleigh House, Westleigh, near Bideford, N. Devon	1	0	0
Gullick, W. F., F.R.H.S.	Waterloo Nursery, Salisbury	1	0	0
Gundry, H. E. B.	Melplash Court, Dorset	1	0	0
Gunn, H. S.	Henbury House, Henbury, Bristol	1	0	0
Gunn, W. I.	Abbots Leigh House, nr. Bristol	1	1	0
Gynn, R. & Son	Treslay, Boscastle, Cornwall	1	0	0
Haile, W. H., C.E.	Crowpill House, Bridgwater	1	0	0
*Hambleton, Viscount	Greenlands, Henley-on-Thames	5	0	0
*Hambro, Sir Eric, K.B.E.	Milton Abbey, Blandford, Dorset	2	0	0
Hambro, H. C.	The Lodge, Tadworth, Surrey	1	0	0
Hancock, C. L.	The Manor House, Cothelstone, Taunton	1	1	0
Hancock, F. C.	Ford House, Wiveliscombe, Som.	1	1	0
Hancock, H. C.	The Court, Milverton, Taunton	1	0	0

Name	Residence	Sub- scriptions		
		£	s.	d.
Hancock, P. F.	Quarry Cleeve, Wiveliscombe, Somerset	1	1	0
Hancock, Mrs. M. F. H. ..	Halse, Taunton	1	0	0
Hannam, A. A. G.	Ridge Farm, Chilmark, Salisbury ..	1	0	0
Harding, E. G.	Foxcote, Grittleton, Chippenham ..	1	0	0
Hardwick, A.	Easton-in-Gordano, Bristol ..	1	0	0
Hargreaves, J.	The Priory, Royston, Herts ..	1	0	0
†Harper, K. J.	Ozleworth Park, Wotton-under- Edge, Glos.			
Harris, H.	Singleton Park Farm, Sketty, S.O., Glam.	1	0	0
Harrison, McGregor & Co. ..	Albion Iron Works, Leigh, Lancs. ..	1	0	0
Harrison, D.	The Grove, Tenby	1	0	0
†Harrison, Lt.-Col. W. E. ..	Wychmor Park, Burton-on-Trent ..			
Harrison, T. D.	Albion Iron Works, Leigh, Lancs. ..	1	0	0
Hart, A.	"Risingholme," Heathfield Tower, Sussex	1	0	0
Harvey, I. H.	Elmdale, Long Ashton	1	0	0
Harvey, R. D.	The Woodlands, Congresbury, Som. ..	1	0	0
Haskell, H.	Watsons, Belsford, Harberton, Devon	1	0	0
Haslam, Mrs.	St. Albans, Weston Park, Bath ..	1	0	0
Hawker, Capt. H. G.	Strode, Ermington, Ivybridge ..	1	0	0
Hawkes & Son	32, East Street, Taunton	1	1	0
Hayes, G. C.	The Greenway, Shurdington, Cheltenham	1	0	0
Hayes-Sadler, Mrs.	Horne Court, Horne, Horley, Surrey ..	1	0	0
Hayward, Mrs. Victor	Bookham Grove, Bookham, Surrey ..	1	0	0
Helyar, Comm. K. C., D.S.O. ..	Poundesford, Taunton	1	0	0
*†Henderson, Lieut.-Col. Hon. H. G.	Buscot Park, Faringdon, Berks. ..			
Henderson, Lady Violet	Buscot Park, Faringdon, Berks. ..	1	0	0
Heneage-Vivian, Rear Admiral Walter	Parc le Breos, Penmaen, Glam. ..	1	0	0
Henry, Lt.-Col. F.	Elmstree, Tetbury	1	0	0
Heseltine, Lt.-Col. J. E. N. ..	Hawking Down Farm, Hindon, Salisbury	1	0	0
Hesse, F. W.	Weston Hill, Weston Park, Bath ..	1	0	0
*Hewthorn & Co.	Cooks Road, Stratford, London, E.15 ..	2	0	0
Heyworth-Savage, Lieut.-Col. C.	Bradwell Grove, Burford, Oxon ..	1	0	0
Hicks-Beach, Lady Susan	Coln S. Aldwyn, Fairford, Glos. ..	1	0	0
Higgins, B.	Millhouse Farm, Evercreech ..	0	10	0
Hignett, G.	Hodshill, Southstoke, Bath ..	1	1	0
Hignett, Mrs. G.	Hodshill, Southstoke, Bath ..	1	1	0
Higson, Capt. Howard	Lufton Manor, Yeovil	1	0	0
Higson, Mrs. Howard	Lufton Manor, Yeovil	1	0	0
†Hill, B. H.	Uphill, Weston-super-Mare			
Hill, C. L.	Harptree Court, East Harptree, near Bristol	1	0	0
Hill, Miss D.	Claverton Manor, Bath	1	0	0

Name	Residence	Sub- scriptions
		£ s. d.
Hill, F. C. G.	Broome Manor, Swindon	1 0 0
Hill, H.	Paulton, near Bristol	1 1 0
Hill, H. W.	High Street, Newmarket	1 0 0
Hill, M. Ll.	Woodspring Priory, Weston-super-Mare	1 0 0
Hill, S.	Langford House, Churchill, Bristol	1 0 0
Hill, Major V. T.	Woodspring Priory, Weston-super-Mare	1 1 0
Hill, W. J. R.	Kingshill Brickworks, Swindon	1 0 0
†Hinckes, Captain R. T.	Mansel Court, Mansel Lacey, Hereford .. ..	.. ..
Hippisley & Sons	Wells, Somerset	1 0 0
Hippisley, R. J. B.	Ston Easton Park, Bath	1 0 0
Hiscock, Victor	France Farm, Blandford	1 1 0
†Hoare, Sir H. H. A., Bart	Stourhead, Zeals, S.O., Wilts .. ..	.. ..
Hobhouse, A. L.	Hadspen House, Castle Cary, Somt.	1 0 0
Hobhouse, Sir Charles, Bart.	Monkton Farleigh, Bradford-on-Avon, Wilts	1 0 0
†Hobhouse, R. A.	Pondmead, Oakhill, Bath .. ..	.. ..
*Hobhouse, Rt.-Hon. H.	Hadspen House, Castle Cary	2 0 0
†Hoddinott, S.	Dean Vale, West Cranmore, Shepton Mallet .. ..	.. ..
Hoffman, P.	4, Cardigan Mansions, Richmond Hill, London, S.W.	1 0 0
Holbech, R. H. A.	Farnborough Grange, Banbury	1 0 0
†Holdsworth, H. M.	104, Alexander Rd., Parkstone, Dorset .. ..	.. ..
Holloway, H. T.	West Lavington Estate Office, Littleton-Panell, Wilts	1 0 0
Holmes, Carl	Clover Top Farm, Welwyn, Herts.	1 0 0
Holmes, Mrs. F. J.	Middleton Stoncy, Bicester, Oxon	1 1 0
Holt Needham, O. N.	Burdocks, Fairford, Gloucester	1 0 0
Honybren, J.	Nuntrey Hill Farm, Buckland Dinham, Frome	0 10 0
Hood, Capt. A. O.	Buckhill House, Calne	1 0 0
Horbury, W. L.	Ettington Park, Stratford-on-Avon	1 0 0
Horne, H. S.	Aldsworth, Ensworth, Hants	1 0 0
Hort, J. F.	Church Farm, North Stoke, nr. Bath	1 0 0
Horton-Starkie, Rev. Preb. .. ..	.. ..	.. ..
Le G. G.	Wellow Vicarage, Bath	1 1 0
Hosegood, R. G.	Aller Farm, Williton, Somerset	1 1 0
Hoskins, A.	Waterside Farm, Radstock	0 10 0
Hoskins, T. C.	Manor Farm, Hemington, Bath	1 0 0
Hoskyns, H. W. W.	The Manor, North Perrott, Crewkerne	1 0 0
Hotson, H. S. (Wolseley Sheep Shearing Mach. Co. (Ld.)	Alma Street, Birmingham	1 0 0
House, J.	"Walkers," Boro'bridge, Bridgwater	1 0 0
Howard, A. H. S.	Thornbury Castle, Gloucester	1 0 0
Howard, J. & F.	Bedford	1 0 0
†Hughes, A. E.	The Laurels, Bargates, Leominster .. ..	.. ..

Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Humphries, Sir Sidney, J.P.	Eastfield Lodge, Westbury-on-Trym, Bristol	1	1	0
Hunloke, Lady	Cowbridge, Malmesbury, Wilts ..	1	1	0
Hunt, F. W.	37, Baldwin Street, Bristol ..	1	0	0
Hunter, Capt. T.	Larkbeare, near Honiton ..	1	0	0
Huntington, Major A. W. ..	Wellesbourne House, Warwick ..	1	0	0
Hurditch, J. A.	Shipway Gate Farm, Portbury, Bristol	1	0	0
Hurle, Major J. A. Cooke ..	Ashburton, Devon	1	1	0
Hurst & Son	152, Houndsditch, London, E.1 ..	1	0	0
†Hylton, Lord	Ammerdown, Radstock			
*Ilchester, Earl of	Melbury, Dorchester	2	2	0
Iles, D.	Lyegrove, Badminton	1	0	0
Imbert-Terry, Capt. F.B., M.C.	Blue Hayes, Broadclyst, Devon ..	1	0	0
Imbert-Terry, Mrs. L.	Blue Hayes, Broadclyst, Devon ..	1	0	0
Impney, E.	Sheldon Manor, Chippenham ..	1	0	0
International Harvester Co. (Ld.)	Harvester House, 259, City Road, E.C.1	1	0	0
Inwood, H. C.	Ridgemoor, Burghclere	1	0	0
Irving, R. C.	Shenley Lodge, Ridge Mill, nr. Barnet, Herts	1	0	0
Ismay, Mrs.	Iwerne Minster, Blandford, Dorset	1	0	0
Iveagh, Earl of, C.B., C.M.G. D.L.	Pyrford Court, Old Woking, Surrey	1	0	0
Jackman, Percy	Pulteney Hotel, Bath	1	0	0
Jackson, Sir Henry Mather Bt., C.B.E.	St. Mary's Hill, Abergavenny, Mon.	1	0	0
James, A.	Totterdown, Bristol	1	0	0
James, H. G.	Priory Farm, Portbury, Somerset	1	0	0
James, Mark	Home Farm, Ston Easton, Bath ..	1	0	0
Jeffery, A. & Co.	70, High St., Walthamstow, London	1	0	0
Jenkins, H. W.	c/o F. Capern, Lewin's Mead, Bristol	1	0	0
Jenkins, T. E.	Kilvrough Home Farm, Park Mill, S.O., Glamorgan	1	0	0
Jenkins, Captain Vaughan ..	St. Winifreds, Combe Down, Bath	1	0	0
†Jervoise, Mrs. B. A. L. ..	Herriard Park, Basingstoke			
Jervoise, Major F. H. T. ..	Herriard Park, Basingstoke ..	1	1	0
John, W. Llewellyn	Penmount, Llanelly, Carm. ..	1	1	0
Johnson, L. O.	Peppers, Ashurst, Steyning, Sussex	1	0	0
†Jones, H. G.	Downford, Mayfield, Sussex ..			
Jones, H. G. P.	Hillsborough Fruit Farms, Canford, Wimborne	1	0	0
Jones, Mrs. J. E.	Treworgan, Ross, Herefordshire ..	1	0	0
Jones, K. S.	Norton House, West Cross, Swansea	1	0	0
Joyce, J.	Preston, Milverton, Somerset ..	1	0	0
Joyce, Rev. W. W.	Charles Rectory, Barnstaple ..	1	0	0

Subscriptions.

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Name.	Residence.	Sub- scriptions		
		£	s.	d.
Kane, Capt. C. J.	Kingston Russell House, Long Bredy, Dorchester	1	0	0
Kay, Capt.	Bickwell Farm House, Sidmouth	1	1	0
Kekewich, Sir T. H., Bart.	Peamore, Exeter	1	0	0
Kelaart, V. D.	Pratts Hotel, Bath	1	0	0
Kemmis, Lt.-Commr. H. W. A., R.N.	Chilworthy House, Chard, Somerset	1	1	0
†Kemp, L. J.	Maer, Exmouth .. ..	..	..	..
Kendall, J. N.	Lopen House, Seavington, Somerset	1	0	0
Kendall, W. G.	Yarner, Dartington, Totnes, S. Devon	1	0	0
Kennaway, Sir J., Bart.	Escot, Ottery St. Mary	1	0	0
Kidner, S., O.B.E.	Bickley, Milverton, near Taunton	1	0	0
Kidston, G.	Hazlebury, Box, Wilts	1	0	0
King, Mrs. A. C.	Braishtield Pony Stud, Romsey, Hants	1	0	0
King, E. W.	Chew Magna, near Bristol	1	0	0
King & Sons, R.	Milsom Street, Bath	1	1	0
Kingscote, Capt. Maurice	Pinkney Court, Malmesbury	1	0	0
Kingwell, H. J.	Great Aish, South Brent, S. Devon	1	0	0
Knight-Bruce, R.	The Sanctuary, Shobrooke, Crediton	1	0	0
Knight, H.	Apple Tree Court, Lyndhurst, Hants	1	0	0
†Knollys, C. R.	Richmond Lodge, Bath .. ..	..	..	..
†Kruse, W.	St. Blazey, Par, Cornwall .. ..	..	..	..
†Lake, C.	Glenthorne, Gravesend .. ..	..	..	..
Lambert, R. E.	Roche Court, Winterslow, Wilts	1	0	0
Lance, Brig.-Gen. F. F.	Wentfield, Wrotham, Kent	1	0	0
Langford, E. W. (Lt.)	Hereford	1	0	0
Langman, Major Sir A. L., C.M.G.	North Cadbury Court, Yeovil, Som.	1	1	0
*Lansdowne, Marquis of	Bowood House, Calne	2	0	0
Las Casas, L. de	Elliscombe House, Wincanton	1	1	0
Las Casas, Mrs. de	Elliscombe House, Wincanton	1	1	0
Lawes, Algernon (Lt.)	203, Hornsey Road, London, N.7.	1	1	0
Lawford, Capt. John	High House, Dawlish	1	0	0
Lawrence, Lt.-Col. the Hon. G.	Hill Farm, Oaksey, Wilts	1	0	0
Lawrence, R.	Rull, Cullompton, Devon	1	0	0
Lear, H. H.	Dornford House, Denmark Road, Gloucester .. ..	..	..	..
Le Breton, Lt.-Col.	Loders Court, Bridport, Dorset	1	0	0
*Le Bas, R. V.	Winsford, Taunton	2	0	0
Leconfield, Lord	Petworth House, Petworth, Sussex	1	0	0
Le Sueur, A. D. C.	Forestry Commission, 22, Grosvenor Gardens, S.W.1	1	1	0
Leeder, E. H.	Mount Pleasant House, Swansea	1	0	0
*Leney, A.	Little Haven, Dibden, Purlieu, Hythe, Southampton	2	0	0
Lerwill, A. R.	Mattox Down, Eastdown, Barnstaple	1	0	0

Name.	Residence.	Subscriptions.		
		£	s.	d.
Leverton, W. A.	Columb John Farm, Stoke Canon, Exeter	1	0	0
Lewis, Col. E.	23, Bathwick Hill, Bath	1	1	0
Ley, Sir Gordon, Bart. ..	Furze Down, Kings Somborne, Hants	1	0	0
Lindsay, Mrs. E. V.	Balliol College, Oxford	1	0	0
Lipscomb, Godfrey	Claverton Lodge, Bathwick Hill, Bath	1	0	0
†Lister, J. J.	Falkland House, Lewes .. ..	..	..	..
Lister, R. A. & Co. (Ld.) ..	Dursley, Glos.	1	1	0
Littleton, W. J.	Holland Barton, Bodmin, Cornwall ..	1	0	0
Llewellyn, G. & Son	The Churn Works, Haverfordwest ..	1	0	0
Llewellyn, Sir David R., Bart.	The Court, St. Fagans, Cardiff ..	1	0	0
Llewellyn, Capt. Llewellyn T. E.	Hackwood, Basingstoke	1	0	0
Lloyd, A. W.	Whitechapel Manor, South Molton ..	1	1	0
Loch, Col. E. H.	Parks, Crediton	1	1	0
Locock, H. T.	4, Clifton Park, Bristol	1	0	0
Loder, Lady	Leonardslee, Horsham, Sussex ..	1	0	0
Long, W. F.	Broadway House, Chilcompton, near Bath	1	0	0
Longrigg, G. E.	Weston Lea, Bath	1	0	0
Loosmore, H.	Holmleigh, Cotleigh, Honiton ..	1	0	0
Lopes, Hon. Mrs. Enestine ..	Sandridge Park, Melksham, Wilts ..	1	1	0
Lopes, Sir H. Y. Buller, Bart.	Maristow, Roborough, Devon ..	1	0	0
Loveday, Dr. T.	Vice-Chancellor, University, Bristol ..	1	0	0
†Lowe, Miss D. A. S., J.P., M.B.E.	Hinton St. George, Somerset .. ..	..	..	..
Luce, R. P.	Lower Chaddlehanger, Tavistock ..	1	0	0
Luckes, S.	Bridge Street, Taunton	1	0	0
Ludwell, H.	Heywood Farm, nr. Radstock ..	0	10	0
*Luff, J. Purnell	The Towers, Evercreech, Bath ..	2	2	0
Lupton, Miss A.	Chalmington, Dorchester	1	1	0
†Lupton, N. D.	Chalmington, Cattistock, Dorset ..	..	..	..
†Lutley, J. H.	Brookhampton, Worcester .. ..	..	..	..
Luttrell, Major A. C.	Lea Combe House, Axminster ..	1	1	0
Luttrell, Capt. A. F.	Court House, East Quantoxhead, Bridgwater	1	0	0
Luttrell, Claude M. F.	Ben Mead, Box, Wilts	1	1	0
Luttrell, G. F.	Dunster Castle, Somerset	1	1	0
*Lynnington, Viscount	Old Manor Farm, Ellisfield, Basingstoke	2	0	0
*Lysaght, G. L.	Chapel Cleeve, Taunton	2	0	0
Lysley, W. J.	Castle Combe, Chippenham	1	0	0
MacAndrew, E. G.	Pallinghurst, Baynards, Horsham ..	1	0	0
McCormick, Major K., M.C.	Duchy of Cornwall Office, Buckingham Gate, S.W.	1	0	0
Macdonald, H. L. S.	Avondale, Bathford, Bath	1	0	0
Macintosh, E.	Boxhill Farm, Dorking, Surrey ..	1	0	0
Macintosh, J.,	The University College, Reading ..	1	0	0

Subscriptions.

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Name.	Residence.	Sub- scriptions.		
		£	s.	d.
McKinnon, Capt. W. D. ..	1, Cary Place, Fleet Street, Torquay	1	0	0
Mackintosh, Sir Harold ..	Conyngham Hall, Knaresborough	1	0	0
McCracken, H. R. ..	Bears Farm, Pilton, Barnstaple ..	1	0	0
McWatters, Col. H. C., D.S.O.	Homewood, Hinton Charterhouse, Bath	1	1	0
McWatters, Mrs. C. G. ..	Homewood, Hinton Charterhouse, Bath	1	1	0
Malet, Col. Sir Harry ..	.. .. .	1	0	0
Mallet, H. ..	Morebath, Dulverton	1	0	0
Mallet, Mrs. H. ..	Morebath, Dulverton	1	0	0
Mamhead, Lord, D.L. ..	Mamhead Park, nr. Exeter ..	1	0	0
Mander, Mrs. Howard ..	Trysull Manor, Wolverhampton ..	1	0	0
Mann, Col. W. H. ..	Bratton, Westbury, Wilts ..	1	0	0
†Mansell, A. E. ..	Mount Vernon, Melton Mowbray, Tasmania	1	1	0
Mansfield, T. ..	Baldwin Street, Bristol	1	1	0
Mappin & Webb (Ld.) ..	158, Oxford Street, London, W.1	1	1	0
Mapstone, R. G. ..	Glastonbury	1	0	0
Marsh, Lewis ..	Westminster Bank (Ld.), Bath ..	1	0	0
Marshall, Capt. J. H. ..	Willowbrook, Overcombe, Weymouth	1	0	0
Marshall, L. H. ..	The Bridge, Godalming, Surrey ..	1	0	0
Martin, Col. ..	Bishops Caundle, Sherborne ..	1	0	0
Martin, Mrs. ..	Bishops Caundle, Sherborne ..	1	0	0
Martineau, H. M. ..	The Lodge, Holyport, Berks ..	1	0	0
Martineau, P. E. ..	Hillside, Cleveland Walk, Bath ..	1	0	0
Martyn, G. ..	Tremeddan, Liskeard, Cornwall ..	1	1	0
Mason, F. F. ..	Union Olub, Carlton House Terrace, Terrace, S.W.1	1	0	0
Massarella, A. ..	Belmont, Bentley, Doncaster ..	1	0	0
Massey Harris Co. (Ld.) ..	53, 54 & 55, Bunhill Row, London, E.C.1	1	0	0
Masters, A. ..	Church Farm, Rudgeway, Glos. ..	1	0	0
Masters, Lt.-Col. G. ..	Prescott House, Gotherington, near Cheltenham	1	0	0
Mathias, A. S. ..	Llangwarren, Letterston, Pembs. ..	1	0	0
Matthews, H. ..	Winterbourne, Bristol	1	0	0
*Matthew, R. W. ..	Adsbrough House, nr. Taunton ..	2	2	0
Maunder, J. ..	Kingweston, Somerton	1	0	0
Maunder, L. J. ..	Butleigh, Glastonbury	1	0	0
Maundrell, S. W. ..	Lushill Farm, Highworth	1	0	0
Mawby, T. ..	Merryweather & Sons, Greenwich, London	1	0	0
May and Hassell (Ld.) ..	Baltic Wharf, Bristol	1	0	0
†Maynard, Howard ..	Taunton	1	1	0
Meade-King, Sir W. O. E. ..	Walford, Taunton	1	1	0
Meddick, William G. ..	37, New King Street, Bath ..	1	0	0
Membery, R. ..	37, Southgate Street, Bath ..	1	0	0
Merrifield, G. P. ..	Gunnabarn Farm, Summercourt, Cornwall	1	0	0
Merryweather & Sons, (Ld.)	Greenwich Road, London, S.E.10..	1	1	0
Merson, T. H. ..	Farringdon, N. Petherton, Bridg- water	1	0	0

Name.	Residence.	Subscriptions.		
		£	s.	d.
Metcalf, T. E.	Elcombe Hall, Wroughton	1	0	0
*Methuen, Field Marshal Lord, C.B., C.M.G.	Corsham Court, Wilts	2	0	0
Methuen, Lady	Corsham Court, Wilts	1	0	0
*Mildmay of Flete, Lord, P.C., T.D.	Flete, Ivybridge, S. Devon	2	2	0
†Miles, Lieut.-Col. Sir Charles W., Bart.	The Manor House, Walton-in- Gordano, Clevedon			
Miles, H.	Auctioneer, Farrington Gurney, Bristol	1	0	0
Miles, P. Napier	Kingsweston House, Shirehampton, Bristol	1	0	0
Millard, F. J.	Bridge Farm, Butleigh, Glastonbury	1	0	0
Miller, A. M.	87, Alma Road, Clifton, Bristol	1	0	0
Miller-Mundy, Major G.	Red Rice, Andover, Hants	1	0	0
Minoprio, F. C.	Avening Court, Avening, Glos.	1	0	0
Mitchell, Major A. B.	Poulton Priory Farm, Cirencester	1	0	0
Mitchell, Major F. A.	Doughton House, Tetbury, Glos.	1	0	0
Mitchell, Capt. H. G.	Tiptoe Lodge, Hordle, Hants	1	0	0
Monks, T. & H.	The Moorings, Holt Green, Aughton, Ormskirk	1	1	0
Moody, G. W.	Stapleton, Martock, Somerset	1	0	0
†Moore, H. F.	Renec House, 48, Dulwich Road, Herne Hill, S.E. 24			
†Moore-Stevens, J. R. C.	Bellenden, Exeter			
Morcom, Mrs. F. I.	Clock House, Bromsgrove	1	0	0
†Morgan, Major L. H. G.	Woolcombe, Wellington, Somerset	1	0	0
Morgan, J. P.	Wall Hall, Aldenham, Watford	1	0	0
Morland, J. C.	The Orchard, Street, Somerset	1	0	0
*Morley, Earl of	Saltram, Plympton, Devon	2	0	0
Morris, Capt. Sir T. R. A., M.C.	Sketty Park, Sketty, Glam.	1	0	0
Morris, Son & Peard	Auctioneers, North Curry, Taunton	1	0	0
Morrison, J.	Fonthill, Tisbury	1	0	0
Morrison, Major J. A., D.S.O.	Basildon Park, Goring, Reading	1	0	0
Morrison-Bell, Col. E. F.	The Close, Tetbury, Glos.	1	0	0
Mortimer, Major M. W.	Longleat Estate Office, Warminster	1	1	0
Mountain, H. S.	Groombridge Place, Kent	1	0	0
Muirhead, Major A. J., M.P.	Haseley Court, Oxford	1	0	0
Muntz, Mrs. J. O.	Foxhains, Horrabridge, S. Devon	1	0	0
Murch, J.	Charlton Mackrell	1	0	0
Murray Smith, Hon. Mrs.	Gumley Hall, Market Harborough	1	0	0
Napier, H. B.	Ashton Court Estate Office, Long Ashton, Bristol	1	1	0
Napier, Mrs. H. B.	Long Ashton, Bristol	1	0	0
Napier, Capt. W. E.	Upton House, Sandwich, Kent	1	0	0
National Society for Epileptics	The Orchards, Chalfont St. Peter, Bucks	1	0	0

Subscriptions.

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Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Neal, W. H.	Walreddon, Farm, near Tavistock	1	1	0
Neeld, Sir A. D., Bart., C.B.	Grittleton, Chippenham	1	0	0
Nelder, C. W.	Carnarvon Arms, Dulverton, Somerset	0	10	0
Nestles & Anglo Swiss Con- densed Milk Co.	Chippenham	1	0	0
†Neville, Lieut.-Commander Ralph, R.N.	Butleigh, Glastonbury . . . .	..	..	..
†Neville-Grenville, Robert . .	Butleigh Court, Glastonbury . .	..	..	..
New. H. G.	Craddock, Cullompton, Devon . .	1	0	0
Newbery, A. S.,	Newenham House, Axminster, East Devon	1	0	0
Newton, A. E.	Dipford House, Trull, Taunton . .	1	1	0
Newton, Chambers & Co. (Id.)	Thorncliffe, near Sheffield . . .	1	1	0
Nicholas, R.	Mount Pleasant Farm, Buckland Dinham, Frome	0	10	0
Nicholietts, E. C.	The Lons, Bitton, Gloucestershire	1	0	0
†Nichols, G.	6, Downside Road, Clifton, Bristol	1	0	0
Nicholson, R. F.	Woodcott, Whitechurch, Hants . .	1	0	0
Nicholson, Major H. B., D.S.O.	Mappercombe Manor, Melplash, Dorset	1	0	0
Nickolls, A. W.	Lorna Doone Rustic Works, Barn- staple	1	0	0
Nixon, W.	Great Pinley, Claverdon, Warwick	1	0	0
Norman, Messrs C.	Moor Place Farm, Much Hadham, Herts	1	0	0
*Normanton, Earl of	Somerley, Ringwood	2	0	0
North Somerset Electric Supply Co. (Id.)	Bower Ashton, Ashton Gate, Bristol	1	1	0
Northey, G., J.P.	Cheney Court, Box, Wilts . . .	1	0	0
†O'Hagan, Lord . . . . .	.. .. .	..	..	..
Oldershaw, Dr. J., C.B.E.	Peterhurst, Clevedon, Som. . . .	1	0	0
Oldham, H. E.	Bennetts, Whitstone, Cornwall . .	1	0	0
Onslow, Countess of	Clandon Park, near Guildford . .	1	0	0
*†Oppenheimer, Sir B., Bart.	.. .. .	..	..	..
Osborne, A. H. W. & Sons . .	Branch Farm, Mells, Frome . . .	1	0	0
Osmond & Son	Grimsby	1	0	0
Paddison, W. P.	Research Department, Royal Arsenal, Woolwich, London, S.E. 18	1	0	0
Page, E.	Ivythorne Manor, Street, Somerset	1	0	0
Paget, The Hon. Dorothy . .	8, Balfour Place, Park Lane, Lon- don	1	0	0
*Paget, Sir Richard, Bart. . .	1, Devonshire Terrace, Lancaster Gate, London, W.2	2	0	0
Palmer, A. L.	Brown Hinton, Martock	1	0	0
*Palmer, E. E.	Priors Court, Chieveley, Berks . .	2	0	0

Name.	Residence.	Sub- scriptions.		
		£	s.	d.
†Palmer, J. H.	Pinewood, Burnham-on-Sea, Som- erset .. ..	..	..	..
Palmer, W. H.	York Buildings, Bridgwater	1	0	0
Palmer, Mrs. W. Howard	Heathlands, Wokingham, Berks	1	0	0
Palmer, Lt.-Col. W. Llewellyn, M.C.	Rushmore Park, Salisbury	1	0	0
Pape, Mrs. A. M.	Shrewton House, Wilts	1	0	0
†Parker, Hon. J. H.	Guyers, Corsham, Wilts .. ..	..	..	..
Parkes, Miss M. M.	Lapal House, Quinton, Birmingham	1	0	0
Parsons, F. W.	Speckington, Ilchester	1	0	0
Parsons, J.	The Lons, Nore Road, Portishead	1	0	0
†Parsons, J. D. Toogood .. ..	.. ..	..	..	..
Parsons, P.	Greenfield Farm, Portishead	1	0	0
†Parsons, R. M. P.	Misterton, Crewkerne .. ..	..	..	..
Partridge, A. A.	Little Stirt, Cornwood, Devon	1	0	0
Pass, A. D.	Manor House, Wootton Fitzpaine, Charmouth, Dorset	1	0	0
Patch, H. C.	Dial Farm, Barrow Gurney, Somerset	1	0	0
Peace, A. H.	Creech St. Michael, near Taunton	1	0	0
Peacock, Sir W.	3, Buckingham Gate, London	1	1	0
Pearce, E.	51, Queen Charlotte Street, Bristol	1	0	0
Pearce, J. L.	51, Queen Charlotte Street, Bristol	1	0	0
Pearcey, T. J.	Peadhill, Tiverton, Devon	1	0	0
†Pearson, Hon. Clive	Parham, Pulborough, Sussex .. ..	..	..	..
Peek, Hon. Mrs.	Hazelwood, S. Devon	1	1	0
Pelly, H. C.	Venars, Nutfield, Surrey	1	0	0
*Pender, Major H. Denison, D.S.O.	Strangways, Marnhull, Dorset	2	0	0
†Penny, F. W.	Greenway House, Taunton .. ..	..	..	..
Penrose, William	Trequean, Breage, Helston, Cornwall	1	0	0
Pepper, W. F.	Sharcombe, Wells, Som.	1	0	0
Perry, J. G.	Home Farm, Sparkford, Somerset	1	1	0
Petch, S.	Gainsborough House, Milborne Port	1	0	0
Petch, Mrs.	Gainsborough House, Milborne Port	1	0	0
Petherick, R., jun.	Acland Barton, Landkey, Barn- staple	0	10	0
Petters (Ld.)	Yeovil	1	0	0
Pettifer, S. and Son	Malmesbury	1	0	0
Pettifer, T. & Co. (Ld.)	Eydon, Banbury	1	0	0
Pewsey Vale (Ld.)	Pewsey, Marlborough, Wilts	1	0	0
Peyton, E. P.	Cattespoole, near Bromsgrove	1	0	0
Phillips, E. J.	Manor Farm, Writhlington, Rad- stock	0	10	0
Phillips, Sir L. R. .. ..	.. ..	1	1	0
Phillipson, M. R.	Bonehill, Widecombe-in-the-Moor, S. Devon	1	0	0
Phipps, C. B. H.	Chalcot, Westbury, Wilts	1	0	0
Phipps, The Lady Sybil	Chalcot, Westbury, Wilts	1	0	0
Piddington (Northants) Estates (Ld.)	Horton, Northants	1	0	0
Pierce, Miss S. M.	Four Oaks Riding School Four Oaks, Warwickshire	1	0	0

Subscriptions.

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Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Piggott Brothers & Co., (Ld.)	220 to 226, Bishopsgate, London, E.C. 2	1	0	0
Pinkstone, C. G. (Pinkstone (Ld.)	Lower Park Row, Bristol	1	1	0
†Pinney, R. W. P.	Somerton, Somerset .. .. .	..	..	..
Pitchford, G. de	Belgrave House, Cotham Grove, Bristol	1	0	0
Pitman F.	Upper Lentney Farm, Writhington, Radstock	0	10	0
Player, J. D.	Lenton Hurst, Nottingham	1	0	0
Plowman, J.	Westover, Spencer's Belle Vue, Bath	1	0	0
*Plymouth, Earl of	Hewell Grange, Bromsgrove	4	0	0
*Poltimore, Lord	Court Hall, North Molton, Devon	2	2	0
Pooley, J.	Rosewarne, Gwinear Hayle	1	0	0
Poore, Capt. J.	Estate Office, Badminton, Glos.	1	0	0
Pope, Alfred, J.P.	South Court, Dorchester	1	0	0
Pope, John	Nowers, Wellington, Somerset	1	0	0
Pope, Miss E. M.	Bashley Lodge, New Milton, Hants	1	0	0
Popham, H. L.	Hunstrete House, Pensford, Bristol	1	0	0
Popham, Mrs. H. L.	Hunstrete House, Pensford, Bristol	1	0	0
Porter J. C.	Lentney Farm, Writhlington, Rad- stock	1	0	0
Porter, W. J. H.	Glendale Farm, Wedmore	1	0	0
Portman, Viscount	Manor House, Staple Fitzpaine, Taunton	1	0	0
Potter, E. F.	Idover Demesne Farm, Little Somer- ford, Chippenham	1	0	0
Powlett, A. T.	42 Milsom Street, Bath	1	0	0
Prescott, W. H.	Highlands, Woldingham, Surrey	1	0	0
†Price, Sir Francis, Bart.	The Down House, Redmarley, Gloucester .. .. .	..	..	..
Prichard, H. L.	Penmaen, R.S.O., Glam.	1	0	0
Pritchard, E.	Wood Hill Park, Wootton Bassett, Wilts	1	0	0
Proctor, H. & T. (Ld.)	Cathay, Bristol	1	1	0
Proudfoot, W.	Lynmouth, Keyberry Park, Newton Abbot	1	0	0
Pullin, J. W.	Compton Greenfield, Bristol	1	0	0
Pyman, J. Sutcliffe	Norsebury, Sutton Scotney, Hants	1	0	0
Pyman, Mrs. J. Sutcliffe	Norsebury, Sutton Scotney, Hants.	1	0	0
Quantock Vale Cider Co.	North Petherton, Bridgwater	1	0	0
Quicke, Capt. N. A.	Newton House, Newton St. Cyres, Devon	1	0	0
*†Radnor, Earl of	Longford Castle, Salisbury .. .. .	..	..	..
Rank, J. V.	Ouborough, Godstone, Surrey	1	0	0

Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Rawlence, Ernest A...	Pembroke Lodge, 74, Anglesea Road, Southampton	1	0	0
Rawlence, G. Norman	Salisbury	1	0	0
†Rawlence, Major M., D.S.O., R.E.	c/o Lloyd's Bank, Cox's Branch, 16, Charing Cross, London, S.W.1 ..			
Rea, F. H.	Kite's Nest Farm, near Wotton- under-Edge, Glos.	1	0	0
Reakes, H. F.	Batch Farm, Kilmersdon, Radstock	1	0	0
Reed, P. J.	Bineham, Long Sutton, Langport	1	0	0
Reed, R. E.	Bineham, Long Sutton, Langport	1	0	0
Rees, A. & Sons	Whiteway Works, Cirencester ..	1	0	0
Rees-Mogg, Mrs. Graham	Clifford Manor, nr. Stratford-on- Avon	1	0	0
Reeves, R. M. F.	Combe House, Backwell, Somerset	1	0	0
Reeves, Robert & John & Son	Bratton Iron Works, Westbury, Wilts	1	0	0
Rendell, A. J.	Stall Street, Bath	1	0	0
Rennie, J. H.	Porthycarne, Usk, Mon.	1	0	0
Rich. S. L.	Chapel Farm, Faulkland, Bath ..	1	0	0
Ricks, Miss O. W. ..	Hatch Farm House, Addlestone, Surrey	1	0	0
*Ridley, Col. H. M.	Maperton, Wincanton	2	0	0
Roach, W.	Trewidden, Buryas Bridge, Cornwall	1	0	0
Roberts, C. M.	5, Edward Street, Bath	1	0	0
Roberts, Gerald	St. Crispins, Sherborne, Dorset ..	1	0	0
Roberts, K., M.I.M.E. (J. Coultas, Ltd.)	Normandine, Belton Lane, Grantham	1	0	0
Robins, O. T. & A. F. ..	Lidcott Hall, High Bray, South Molton	1	0	0
Robinson, E. S. & A. (Ld.) ..	Redcliffe Street, Bristol	1	1	0
Robinson, John & Co.	Bristol	1	1	0
Robinson, Lt.-Col. P. G. ..	The Manor, Queen Charlton, nr. Bristol	1	0	0
*Robinson, T.	West Town, near Bristol	2	0	0
Robinson, Foster G.	Goldney House, Clifton, Bristol ..	1	0	0
Roche, Capt. J. W.	Donyatt, Ilminster	1	0	0
Roger, Lady	Yockley House, nr. Camberley ..	1	0	0
Rogerson, R. W.	Northgate Street, Bath	1	0	0
Rolleston, S. V.	15, Brock Street, Bath	1	0	0
Roper, Geoffrey D.	Forde Abbey, Chard	1	0	0
†Rose E. H.	Leweston Manor, Sherborne, Dorset			
Ross, J.	City Librarian, Central Library, Bristol	1	0	0
Rothwell, Major R.	Morebath, N. Devon	1	1	0
Roundway, Col. Lord, C.M.G., D.S.O., M.V.O.,	Roundway Park, Devizes	1	0	0
Rouse-Boughton, Sir W. St. A., Bart.	Downton Hall, Ludlow	1	0	0

Subscriptions.

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Name	Residence	Sub- scriptions		
		£	s.	d.
Rowcliffe, E. L.	Stovolds Hill, Cranleigh, Surrey ..	1	1	0
Rowland, P. S.	Fairy Hill, Reynoldston, Gower, Glam.	1	0	0
Royal Guernsey Agricultural and Horticultural Society	Guernsey	1	0	0
*†Rubin, Bernard	North Hill Farm, Dundry, near Bristol	1	0	0
Russell, G.	Davenham Hall, Northwich, Cheshire ..	1	0	0
Russell Allen, P. L.	Davenham Hall, Northwich, Cheshire ..	1	0	0
Russell Allen, Miss Diana ..	Grantham	1	0	0
Ruston & Hornsby (Ld.) ..	Wall, Lichfield, Staffs.	1	1	0
†St. Audries, Lord	St. Audries, Bridgwater .. ..	..	..	..
Salopian Cattle Bowl Co. ..	Prees, Whitechurch, Salop	1	0	0
Salter, T.	Beare Farm, Broadclyst, Exeter ..	1	0	0
Sampson, H. & Sons (Ld.) ..	Malago Vale Iron Works, Bed- minster, Bristol	1	0	0
Scammell, C. A. J.	Falkland Farm Falkland, nr. Bath ..	0	10	0
Scotney, T. M.	West End Mills, St. Ives, Hunts ..	1	0	0
Scott, A. B.	The Batch, Flax Bourton	1	0	0
Scott, Geo. A.	Frome Cliff, Stapleton, Bristol ..	1	0	0
Scrutton, A.	Beaulieu, West Overcliff Drive, Bournemouth	1	0	0
Scrutton, Mrs. A.	Beaulieu, West Overcliff Drive, Bournemouth	1	1	0
†Seaton, Lord	Buckland Abbey, Yelverton, Devon ..	..	..	..
Shaw, Mrs. D. E.	Steyning Manor, Stogursey, Bridg- water	1	1	0
Shaw, Col. F. S. Kennedy, C.B.E.	Teffont Magna, Salisbury	1	1	0
Shaw, W. B. K.	Teffont Magna, Salisbury	1	0	0
†Shaw-Stewart, Walter R. ..	Fonthill Abbey, Tisbury, Wilts .. ..	..	..	..
Sheldon, R. F.	West Street House, Wells	1	0	0
*Shelley, Sir J. F., Bart. ..	Posbury House, Crediton	2	2	0
Shelley, Lady	Posbury House, Crediton	1	0	0
Sheppard, P. C. O.	Dunraven Estate Office, Bridgend, Glam.	1	1	0
Sherriff & Sons	Lemsford, Hatfield	1	0	0
†Sherston, C. J. T.	The Quarry, Amberley, Sussex .. ..	..	..	..
†Sherston, T. P. D.	Estate Office, Templecombe, Somerset .. ..	..	..	..
*Sidmouth, Viscount	Up Ottery Manor, Honiton	2	0	0
Silcock, R. & Sons	Stanley Hall, Union Street, Liver- pool	1	1	0
Sinclair, R. J.	Cleeve Court, near Bristol	1	0	0
*Singer, W. M. G.	42, Charles Street, Berkeley Square, London, W.1.	2	0	0
Skidmore, Miss E.	Ashley Leigh, Box, Wilts	1	0	0

Name	Residence	Sub- scriptions		
		£	s.	d.
Skinner, Board & Co. . .	Exmoor Street, Bedminster, Bristol	1	0	0
Skinner, G. C. . .	Pound, Bishops Lydeard . .	1	1	0
Skrine, Miss A. D. M. . .	Warleigh Manor, Bath . .	1	0	0
Small, G. . .	Stoney Littleton Farm, Peasedown, Bath	0	10	0
Smart, G. E. . .	Combe Hay Manor, Bath . .	1	1	0
Smith, A. J. (Ld.) . .	9, Queen's Square, Bristol . .	1	0	0
Smith, D. . .	Court Farm, Stoke Gifford, near Bristol	1	0	0
Smith, E. A. . .	Longhills, Lincoln	1	0	0
Smith, W. G. Verdon, C.B.E.	Hill House, Long Ashton, Bristol . .	1	0	0
Smith-Barry, Mrs. K. . .	c/o H. I. Richmond, Lloyds Bank Chambers, Wrexham	1	1	0
Smyth, Hon. G. N. . .	Ashton Court, Bristol	1	0	0
Smyth, Hon. Mrs. . .	Ashton Court, Bristol	1	0	0
Somerset, Duke of . .	Maiden Bradley, Bath	1	0	0
Somerset Farm Institute . .	Cannington, near Bridgwater . .	1	0	0
Somerset Trading Co. (Ld.) . .	Bridgwater	1	1	0
†Somerville, A. F. . .	Dinder House, Wells, Somerset . .	..	..	..
Southwell C. . .	117, Park Road, Worthing . .	1	0	0
Southwell, G. R. . .	Holbury Farm, Lockerley, Romsey	1	0	0
Southwood, J. W. C. . .	1, St. Peter's Terrace, Twerton, Bath	1	0	0
Sowerby, T. M. . .	Backwell Down, Flax Bourton, Som	1	0	0
Spear Brothers & Clark (Ld.)	Southgate Street, Bath	1	0	0
Speke, Capt. C. . .	Horton Cross, Ilminster, Somerset	1	0	0
Spencer, Lieut.-Col. H. G. . .	Southill House, West Cranmore, Somerset	1	0	0
Spencer Follett, Lt.-Col. . .	Rockbeare Manor, Devon	1	0	0
Spillers (Ld.) . .	Redcliffe Back, Bristol	1	1	0
Staines, Mrs. . .	Hook Farm, Leigh, Surrey . .	1	0	0
*†Stanley, E. A. V. . .	..	..	..	..
Stanley, Col. the Hon. A., D.S.O.	Sopworth, Chippenham, Wilts . .	1	0	0
Stanton, G. K. . .	The Elms, Alveston, Glos. . . .	1	0	0
Statter, J. R. . .	The Cottage, Castle Morton, near Malvern, Worcester	1	0	0
Staveley, Mrs. M. E. . .	Sturford, Walton by Clevedon . .	1	1	0
Stephenson and Alexander . .	Auctioneers, Cardiff	1	1	0
†Stern, Sir Edward, D. L. . .	Fan Court, Chertsey . . . .	..	..	..
Stevenson, J. K. H. . .	The Chase, Upper Welland, Mal- vern Wells	1	0	0
Stewart, Lt.-Col. P. D. . .	Chadshunt, Kineton, Warwickshire	1	0	0
Stewart Richardson, Major R. M.	Idover House, Dauntsey, Chippen- ham, Wilts	1	0	0
Stibbard, Lt.-Col. H. J., O.B.E.	Chiseldon Camp, Wilts	1	0	0
Stilgoe, H. W. . .	The Grounds, Adderbury, near Banbury, Oxon	1	0	0
Stobart, Capt. F. E. . .	Abingworth, Pulborough, Sussex	1	0	0
Stocker, Capt. A. Harold . .	Northlands, Chichester, Sussex . .	1	0	0
Storey, H. L. . .	The Manor House, Malmesbury . .	1	0	0

Subscriptions.

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Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Storr, Miss I.	40, Mecklenburgh Square, London	1	1	0
Storror, J. I... ..	Tredegar Estate Office, Newport, Mon.	1	0	0
Stott, F. J.	The Hermitage, Ridgeway, near Frome	1	0	0
†Strachie, Lord	Sutton Court, Pensford, Somerset..	..	..	..
†Strachey, Lt.-Col. the Hon. E.	Sutton Court, Pensford, Somerset..	..	..	..
Strafford, Earl of	Dancers Hill, Barnet	1	0	0
Strangways, Miss S... ..	Shapwick Bridgwater	1	1	0
Stratton, Richard	The Duffryn, Newport Mon. ..	1	0	0
Strauss, E. A.	Estate Office, Kingston Bagpuize, Abingdon, Berks.	1	0	0
Strode, G. S. S.	Newnham Park, Plympton	1	0	0
Studdy, R. F. B.	Estate Office, Wotton, Dorking ..	1	1	0
*Sutton, E. P. F., M.B.E. ..	Erleigh Park, near Reading ..	2	2	0
*Sutton and Sons	Seedsmen, Reading	2	2	0
Swansea, Lord, D.S.O., M.V.O.	Caer Beris, Builth, Breconshire ..	1	0	0
Swanton, F.	Overton, Marlborough	1	0	0
Swayne, Mrs. G.	Abbeywood, Burnham-on-Sea, Somerset	1	1	0
Sykes, E.	Richings Park, Colnbrook, Bucks ..	1	0	0
Symons, J. & Co. (Ld.) ..	The Plains, Totnes	1	1	0
Tarr, A. H.	Westfield Farm, Chedzoy, Bridg- water	1	0	0
Tavener, G. E.	Budlake, Devon	1	0	0
†Taylor, Cortlandt	Platt House Farm, Wrotham Hill, Kent .. ..	..	..	..
Taylor, E.	The Old Red House, New Bond Street, Bath	1	1	0
Taylor, E. J.	Campfield, Abbots Leigh, Bristol..	1	0	0
Taylor J.	Moss Hall, Stretton, nr. Warrington	1	0	0
Taylor, R. B.	Hendford Lodge, Yeovil	1	0	0
†Tazewell, W. H.	Manor House, Taunton .. ..	..	..	..
*†Temple, Earl	Newton St. Loc, Bristol .. ..	..	..	..
Templeton, R. A. S. (Spillers Ld.)	Animal Food Dept., Bute Street, Cardiff	1	0	0
Terry, F. N.	Chebbar, Dorchester	1	0	0
*Thackray, R.	Fords Farm, Calcot, nr. Reading ..	2	0	0
Thomas, Sir Iltyd	The Mead, Llandaff, Cardiff ..	1	0	0
Thomas, J.	Velindre, Kidwelly, Carmarthen- shire	1	1	0
Thomas, J. C. H.	Bartridge, Umberleigh, Devon ..	1	0	0
Thomas, W. J.	Prospect House, Landkey, Barnstaple	1	0	0
Thomas Evans & John Dyer (Ld.)	Swansea	1	0	0
Thomas-Stanford, Sir Charles, Bt... ..	Preston Manor, Brighton ..	1	0	0

Name.	Residence.	Sub- scriptions.		
		£	s.	d.
Thompson, Major G. Malcolm	Manor House, Kington St. Michael, Chippenham	1	0	0
*Thompson, Major C. ..	The Friary, Kings Bromley, Burton- on-Trent	2	2	0
Thorp, Major B. L. ..	Baltonsborough, nr. Glastonbury ..	1	0	0
Thresher, E. B. ..	Corfe Hill, Weymouth	1	0	0
Thring, Sir Arthur T. ..	Charlton House, Charlton Mackrell ..	1	0	0
ThurLOW, G. R. ..	Stowmarket	1	0	0
†Tiarks, H. A. ..	Webbington House, Axbridge, Som. ..	..	..	..
Tilley, G. Ford ..	Alstone Court, Huntspill, Bridgwater ..	1	1	0
Tipper, B. C. and Son ..	Balsall Heath, Birmingham ..	1	0	0
Titt, J. W. ..	Implement Works, Warminster ..	1	0	0
Toogood, E. K. ..	Messrs. Toogood & Sons, South- ampton	1	0	0
Tory, C. E. ..	Higher Burton House, Dorchester ..	1	0	0
Tory, Mrs. P. ..	Shapwick, Blandford, Dorset ..	1	0	0
Tory, P. C. ..	Shapwick, Blandford, Dorset ..	1	0	0
Tory, R. N. ..	Anderson, Blandford, Dorset ..	1	0	0
Tory, W. R. ..	Clenstone Manor, Blandford, Dorset ..	1	0	0
*Tredegar, Viscount ..	Tredegar Park, Newport, Mon. ..	2	2	0
Tregoning, Capt. G. N. ..	Bevill's Hill, Bridgerule, near Hols- worthy, N. Cornwall	1	0	0
†Tremaine, W. H. ..	Sherborne, Northleach, Glos. ..	..	..	..
Tremayne, Capt. W. F. ..	Carclews, Perran-ar-Worthal, Truro ..	1	1	0
Treowen, Major-General Lord	Llanarth Court, Raglan, Mon. ..	1	0	0
Trevilian, Major Maurice F. Cely, D.L. ..	Midelney Manor, Drayton, Langport ..	1	0	0
†Tritton, Mrs. Ida Helena ..	The Rectory, Curry Mallet, near Taunton .. .. .	..	..	..
*Trollope-Bellew, Capt. Froude, D.S.O., M.C. ..	Crowcombe Court, Taunton ..	2	0	0
Trump, W. ..	Borough Farm, Broadclyst, Exeter ..	1	0	0
Tucker, M. & Sons ..	Broad Quay, Bath	1	0	0
Tudway, Lt. L. C. P., D.S.O.	Milton Lodge, Wells	1	0	0
Turner, Lt.-Col. C. E. ..	Old Down, Tockington, nr Bristol ..	1	0	0
Turner, P. C. ..	Day's Farm, Wilmington, Kent ..	1	0	0
Turner, W. ..	Stone House, Much Marcle, Dymock Glos.	1	0	0
Tyler, A. T. ..	Highbridge, Somerset	1	1	0
Uneles, B. ..	21, Trowbridge Road, Bradford-on- Avon	1	0	0
Upson, J. R. ..	Severalls Farm, Rush Court, Walling- ford, Berks	1	0	0
†Vacher, E. P. ..	Cowfold Lodge, Cowfold, Sussex ..	..	..	..
Vaughan, Mrs. E. M. ..	Blackladies, Brewood, Staffs. ..	1	0	0
Vaughan, R. C. ..	"Bushbury," Blackboys, Sussex ..	1	0	0
Veitch and Son ..	Exeter	1	0	0
Vickers, D. ..	Temple Dinsley, Hitchin	1	0	0
Victoria Wagon Works Co.(Ld.)	Bristol	1	1	0

Subscriptions.

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Name.	Residence.	Subscriptions.	
		£	s. d.
Vigzol Oil Refining Co. . .	Ormskirk	1	0 0
†Vinson-Thomas, Mrs. Joan	Little Lyndridge, Okehampton, Devon
Visgar, Dr. Charles, O.B.E., M.R.C.V.S.	Beach Croft, Clevedon	1	0 0
Vivian, C. C.	"Craigsides," Langland, near Swansea	1	0 0
Waddell, J., J.P.	Ravelston, Tumble, near Llanelly	1	0 0
Wainwright, C. Donald . .	Westleigh, Shepton Mallet . .	1	1 0
Walker, E. G. F.	The Hollies, Chew Stoke, Bristol .	0	10 0
†Walker, J.	Knightwick Manor, Worcester . .	..	..
*Walker, Lieut.-Col. P. L. E.	Great House, Chipping Sodbury, Glos.	2	0 0
Wallace, T., M.C.	Research Station, Long Ashton, Bristol	1	0 0
Waller, Col. H., D.S.O. . .	Jaggards, Corsham, Wilts . . .	1	0 0
Ward, R. Bruce	Godinton, Ashford, Kent . . .	1	0 0
Warne, J.	Tregonhayne, Tregoney, Gram- pound Road	1	0 0
†Warner, Col. Sir Courtenay, Bart., C.B.	Bretterham Park, Suffolk . . .	..	..
Warren, W. J.	Deacons Farm, Staplegrove, Taunton	1	0 0
Warry, Colonel B.	Shapwick, Bridgwater	1	0 0
Waterloo Mills Cake and Warehousing Co. (Ld.) . .	Wilmington, Hull	1	0 0
Waters, Hon. Mrs.	Arley Hall, Northwich, Cheshire .	1	0 0
Watson, H. R.	Milborne Wick, Milborne Port . .	1	0 0
Watson, Capt. Hon. T. H.	Cormiston, Milverton, Somerset .	1	0 0
†Watts Major E. M. . . .	Eastwood Park, Falfield, Glos. . .	..	..
Watts, W. F. G.	Elsfield, Oxford	1	0 0
Weaver & Co.	Beaufort Warehouses, Swansea . .	1	0 0
Webb, E. and Sons	Wordsley, Stourbridge	1	0 0
Webb, Major W. Harcourt	Spring Grove, Bewdley	1	0 0
Webber, W. J.	10, St. Matthew's Avenue, Surbiton, Surrey	1	1 0
Weech, G. A.	Worlebury, Weston-super-Mare . .	1	0 0
Wellesley, Miss	Ford House, Churchingford, Chard	1	0 0
Wessex Associated News (Ld.)	Westgate Street, Bath	1	0 0
West, E. P.	Secretary-Manager, University of Bristol Research Station, Long Ashton, Bristol	1	0 0
Westlake, W. J.	Godwell Farm, Ivybridge, S. Devon	1	0 0
Westminster, Constance Duchess of	Malwood, Lyndhurst, Hants . . .	1	0 0
Weston, H. and Sons . . .	The Bounds, Much Marcle, <i>via</i> Dymock, Herefordshire	1	0 0
Weymouth, Viscount . . .	Longleat, Warminster	1	0 0
†Wheatley, Lt.-Col. C. J. H.	Berkswell Hall, near Coventry . .	..	..
†Wheeler, A.	Chippinghurst, Cuddesdon, Oxford	..	..

Name.	Residence	Subscriptions.		
		£	s.	d.
Whitburn, Col. C. W. Sofer..	Amport, Andover, Hants ..	1	0	0
Whitburn, Mrs. Sofer ..	Amport, Andover, Hants. ..	1	0	0
†White, A. R., O.B.E. ..	Charnage, Mere, Wilts ..	..	..	..
White, F. ..	Torweston, Williton ..	1	0	0
White, Mrs. F. ..	Brookover Farm, nr. Frome ..	0	10	0
*†White, Sir G. Stanley, Bart.	Hollywood Towers, near Bristol ..	..	..	..
White, S. T. ..	Sock Dennis Farm, Ilchester ..	1	0	0
White, W. J. ..	Hallhayes Farm, Sanford Moor, Wellington, Somerset ..	1	0	0
White, W. J. S. ..	Zeals Park, Wiltshire ..	1	0	0
White, W. & Son ..	Pool Farm, Taunton ..	1	0	0
Whitehead, A. J. ..	Lydford Park Farm, West Lydford ..	1	0	0
Whitley, G. ..	Park House, Over Stowey, Bridgewater ..	1	1	0
Whitley, W. and H. ..	Primley Farm, Paignton ..	1	0	0
Whittington, Major A. R. ..	Yarty Farm, nr. Axminster, Devon ..	1	0	0
Wigan, E. A. ..	Conholt Park, Andover ..	1	1	0
*Wight-Boycott, Capt. Hubert	Oakhampton Manor, Wiveliscombe, Somerset ..	2	2	0
Wilkin, Mrs. H. D. ..	Corsley House, Warminster, Wilts ..	1	0	0
Willcox, W. H. & Co. ..	36, Southwark Street, London, S.E.1 ..	1	0	0
†Williams, A. M., M.P. ..	Werrington Park, Launceston ..	..	..	..
Williams, C., M.P. ..	Greenway, Churston Ferrers, South Devon ..	1	0	0
Williams, Major C. A. ..	Cloon Eavin, Sunningdale, Berks..	1	0	0
Williams, E. S. ..	The Lodge, Warmley, nr. Bristol..	1	0	0
Williams, G. L. ..	Chavenage, Tetbury ..	1	1	0
Williams, G. P. ..	Scorrier, Cornwall ..	1	0	0
Williams, J. ..	Scorrier House, Scorrier, Cornwall ..	1	0	0
Williams, J. C., M.P. ..	Werrington Park, Launceston ..	1	0	0
†Williams, M. Scott..	Woolland House, Blandford ..	..	..	..
*†Williams, P. F. C. ..	Bridehead, Dorchester ..	..	..	..
Williams, P. M. ..	Caerhayes Castle, St. Austell Cornwall ..	1	0	0
†Williams, Col. Sir Robert	Bridehead, Dorchester ..	..	..	..
Williams, W. ..	Bryncelin, Sennybridge, Breconshire ..	0	10	0
Williams, W. H. ..	The Oaks, Hewish, near Bristol ..	1	1	0
Williams-Bulkeley, Miss ..	Bilsborough, Henfield, Sussex ..	1	0	0
Williams-Owen, Mrs. ..	Treveilr, Bodorgan, S.O. Anglesey ..	1	0	0
Willis, G. H. ..	Ivy Lodge, Birdlip, Glos. ..	1	0	0
Wills, A. Stanley ..	21, Royal Crescent, Bath ..	1	0	0
*Wills, Capt. A. S. ..	Thornby Hall, Thornby, Northampton ..	2	0	0
Wills, C. M. ..	Sherfield Court, near Basingstoke ..	1	0	0
Wills, Mrs. C. M. ..	Sherfield Court, near Basingstoke ..	1	0	0
Wills, Sir Frank ..	12, Tyndall Avenue, Tyndall Park, Bristol ..	1	0	0
Wills, Lady J. ..	Langford Court, nr. Bristol ..	1	0	0
*Wills, W. D. & H. O. ..	Redminster, Bristol ..	2	0	0

Subscriptions.

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Name.	Residence.	Subscriptions.	
		£	s. d.
Wills, W. Melville	Estate Office, Bracken Hill, Leigh Woods, near Bristol	1	0 0
Wills, Capt. D. Melville ..	Barley Wood, Wrington, nr. Bristol ..	1	0 0
Willson, Stephen	Canadian Pig Powder Factory, Peterborough	1	0 0
Wilmot, R. M.	British Oil and Cake Mills, Craymead, Sidcup, Kent	1	0 0
Wilmot, S. M. and Co. ..	Albert Road, St. Philip's Marsh, Bristol	1	1 0
Wilson, Capt. R. G. M. ..	The End House, Lady Margaret Road, Cambridge	1	0 0
Wilson, R. W.	Chewton Mendip	1	0 0
Wiltshire Creameries (Ld.) ..	Milk and Corn Factors, Chippenham ..	1	1 0
Winstone, S. W.	Racecourse Farm, Portbury	1	0 0
Winter, Major F. J.	Canok Lodge, Walton-by-Clevedon, Somerset	1	0 0
†Winterton, Earl, M.P. ..	4, Wilton Street, Grosvenor Place, London, S.W. .. ..	..	..
Wise, A. G.	Hampton House, Brislington, Bristol ..	1	1 0
Withers, R.	Caswell Farm, Clapton, Portishead ..	1	0 0
Withers, W. R.	Lower Court Farm, Long Ashton, Bristol	1	0 0
Woodborough Herd	Marden Mill, nr. Devizes	1	0 0
Woodley, W. A.	2, Elmsleigh Road, Weston-super-Mare	1	0 0
Woolland, W.	Baydon Manor, Ramsbury, Wilts ..	1	0 0
Wootton, J. H.	Byford, Bridge Sollers, Hereford ..	1	0 0
Wright, Lady	Metchley, Barlows Road, Edgbaston, Birmingham	1	1 0
Wright, J. F.	Olton Farm, Solihull, Warwickshire ..	1	0 0
†Wynford, Lt.-Col. Lord, D.S.O.	Wynford House, Maiden Newton, Dorchester .. ..	..	..
Wynford, Lady	Wynford House, Maiden Newton, Dorchester	1	0 0
Yatman, Col. A. H.	The Hall, Winscombe, Somerset ..	1	0 0
Yeatman-Biggs, W. H. ..	Long Hall, Stockton, Codford, Wilts ..	1	0 0
Yeo Bros., Paull & Co. (Ld.) ..	134, Victoria Street, Bristol	1	0 0
Yorke, Mrs.	Peter's Farm, Sandy Lane, near Chippenham, Wilts	1	0 0
Young, E. A.	Mangotsfield, Bristol	1	1 0
Young, G. H.	Rodway Hill House, Mangotsfield, Glos.	1	1 0
Zacharias, J. & Co.	Oxford	1	1 0

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